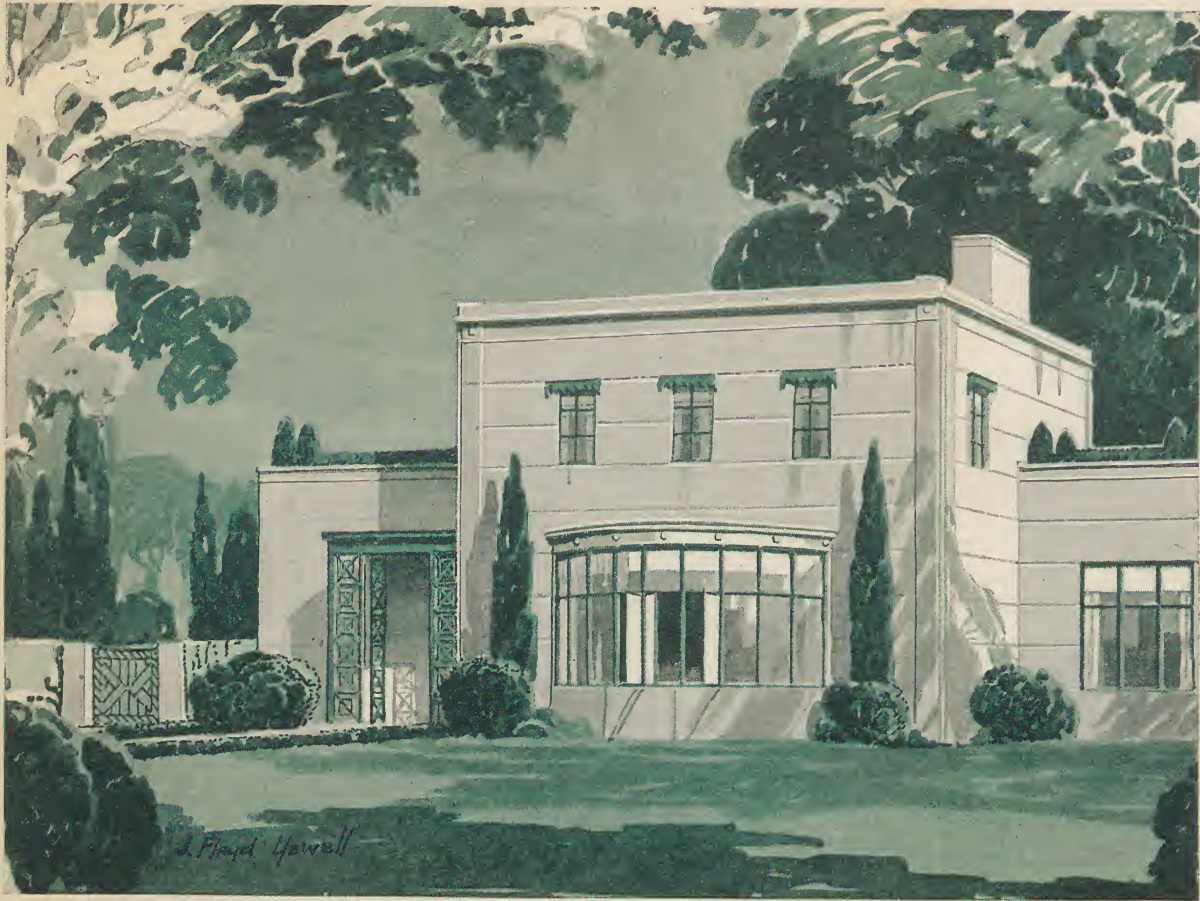


The More You Mention  
THE ARCHITECTS SAMPLES CORPORATION  
The More Manufacturers File Samples, and  
The More Complete Our Service to You



# STRAN-STEEL HOUSE

AT

**A CENTURY OF PROGRESS  
EXHIBITED IN CO-OPERATION WITH  
GOOD HOUSEKEEPING**

Price 25c





## THE STRAN-STEEL HOUSE

AT A CENTURY OF PROGRESS, Exhibited in Co-operation with GOOD HOUSEKEEPING



# BETTER HOMEBUILDING

at

## A Century of Progress

All of the houses at the Chicago Fair exemplify the modern spirit in room arrangement, architecture and landscaping, as well as in decoration and in furnishings. The Stran-Steel House was designed by two well-known architects, H. Augustus O'Dell and Wirt C. Rowland, of Detroit, in collaboration with such nationally known authorities as Baum and Skidmore.

The house is in keeping with the architecture of a Century of Progress. It is not a dull repetition of styles we may see about us, but is a daring effort to arouse contemporary thought to potential improvements and it has served its purpose if it points the way to an architecture of frank simplicity, utility and honest decoration.

It is true that English cottages, New England Farm Houses, French Chateaux, or Italian Villas can all be built of Stran-Steel without any extra work on the part of either the architect or the contractor. It is also true that the Stran-Steel House at Chicago is radical in design. It has no basement and no attic. It is completely insulated against heat and cold. There is a terrace roof garden which opens off an airy recreation room and every mechanical convenience is arranged to satisfy the most critical housewife. This is the only house at the Century of Progress which bears the stamp of approval of the Good Housekeeping Studio.

The supervision of the architectural design, the decorating and the furnishing were done under the direction of Helen Koues, Director of Good Housekeeping Studio. The planning of the kitchen was done under the direction of Good Housekeeping Institute, Katharine Fisher, Director. The equipment was selected by the Stran-Steel Corporation from Good Housekeeping Institute's list of Household Equipment Tested and Approved.

Stran-Steel is not the pre-fabricated steel house of the visionary Technocrats. It is a simple and inexpensive system of steel members, which replaces wood joists and 2 x 4's. It has been in use for over three years. It is neither welded together nor snapped together with clips. It was designed by practical men and is sold by building supply dealers. Stran-Steel is laid out on the job and is erected by ordinary carpenters with ordinary tools. All of the well-known collateral building materials are nailed to Stran-Steel just as they are nailed to wood lumber. Houses built with Stran-Steel are guaranteed against plaster cracks, sticking doors, rattling windows and creaking floors. They cost no more than the so-called modern houses in which we now live. They are fire resistant and should not require frequent repair.

CARL A. STRAND,  
President, Stran-Steel Corporation,  
Affiliated with Kelsey-Haves Wheel Company,  
Detroit, Michigan





## FURNISHINGS AND DECORATIONS

JUST as the Stran-Steel-Good Housekeeping house itself marks new strides in the path of Progress, the interior decorations hold a story that is new. It is the story of contemporary decorating, told in lines of simplicity, in colors that are clear and definite, the use of much white, well-chosen details, furniture made of beautiful woods, and fabrics in good taste. Distinguished from the "modern" we knew a few years back, these interiors have the livable quality we want in our houses; they are smart; and they should be as good tomorrow as they are today.

On these two pages are shown the living room and dining alcove of the house. For style and character the background depends upon the freshness of white walls, a fine black marble mantel trimmed with bronze and with a gold mirror above it, a black marbleized linoleum floor with white inlays, handsome lighting fixtures of crystal and mirror, Venetian blinds painted

Above—Looking from the foot of the stairway is seen this view of the living room, which shows the arrangement of the living groups. There are two important groups of furniture, one with the fireplace as an axis, the other—the desk group—balanced in the bay window section, the two groups being so well worked out that seated any place in the room you are facing those seated in other chairs and the sofa, an important feature in any room. To left is corner of west bay.





## IN THE CONTEMPORARY MOOD

white to match the walls, and a blue painted ceiling with three graded planes at the edge.

As for the furniture there is nothing extreme or exaggerated about it. Its lines draw their inspiration frankly from the Empire period of a century ago, but they are modified, and blended with today's feeling for simplicity and our modern use of fabrics, to make something entirely new—contemporary furniture.

The color scheme of the room is white, yellow, blue and black. Walls are entirely white, ceiling and the interiors of the built-in shelves blue. The rug is an oval one in two smart new tones, the center of toast color and the outside Lido sand, the deeper shade being in the center. In the living group there is a two-seated sofa covered in blue homespun with yellow moss fringe at the seams; a wood frame chair reminiscent of Empire days, in striped blue and yellow satin; comfortable chairs covered in a yellow and blue linen, and occasional tables to hold lamps and accessories. The oval desk is an outstanding piece, made of beautifully



The decorative treatment of the dining alcove (above) is the same as that of the living room, of which it is really a part. Walls are white, curtains yellow, floor black marbled linoleum with white inlays, Venetian blinds white with yellow straps. The furniture is made of rosewood finished a walnut shade, the chairs being upholstered in diagonal yellow corduroy.



The color scheme of the front bed room shown on this and the opposite page is rose, gray and blue. Furniture is in the Empire period, somewhat simplified.



grained rosewood trimmed in bronze, with open shelves for books in the sides, and a beige leather top.

The treatment of the bay group of windows is a feature that adds much to the character of the room. Yellow linen curtains hang at either end and there is a pleated valance across the entire width of the group. The Venetian blinds, painted white and with yellow straps to match the curtains, hang at the glass. The same treatment of windows is followed at the group of windows in the dining alcove. White is the important note in the accessories and lamps, and what a smart accent it is.

## ROOF GARDEN—A DELIGHTFUL RETREAT







## SOMETHING NEW IN BATHROOMS

A BATHROOM with a new idea! It is divided in three sections, so that it can be used by three people at the same time. Walls are covered with "Sealex" wall covering and floors with "Sealex" inlaid linoleum from Congoleum-Nairn, Inc. Paint, "Wallhide," Pittsburgh Plate Glass Co. The fixtures are a soft ivory color and they are made by the Crane Co. White Venetian blinds and yellow organdy curtains from Columbia Mills. Mirror cabinet made by the Capital City Electric Co. Lighting fixtures, from Cassidy Co. Linen: Wellington Sears Co. and Clarence Whitman & Sons, Inc. Curtain Rods, Kirsch Co.



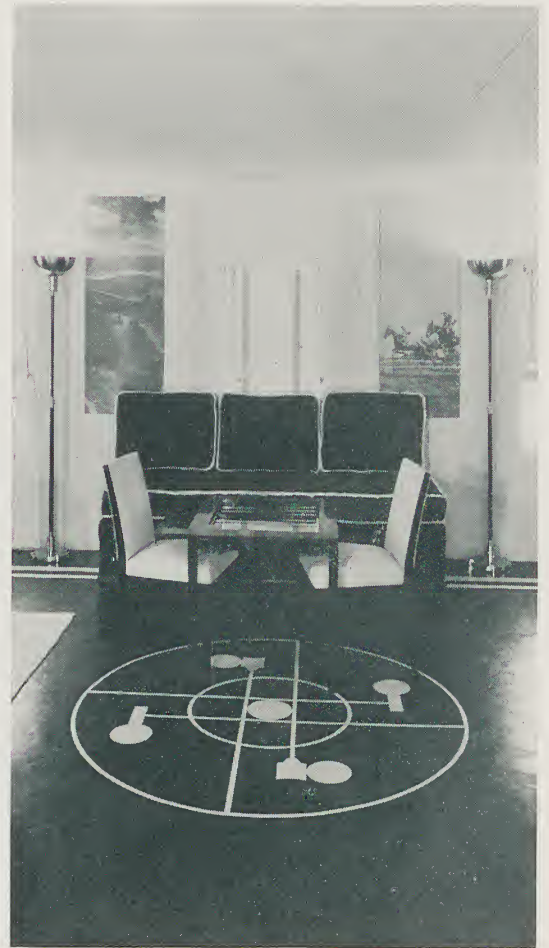
The living room (see pages 2 and 3), like all the other rooms of the house, was built in a co-operative way, all the furnishings being chosen from the products of leading manufacturers of the country by Good Housekeeping Studio, and contributed by these manufacturers for the duration of the Exposition. In the living room and dining alcove shown on these two pages walls and ceilings are of Sheetrock from the U. S. Gypsum Co. They are covered with Sanitas canvas, from the Standard Textile Products Co., the canvas being painted, after it was hung, with "Wallhide" from the Pittsburgh Plate Glass Co. The same paint, in blue, was used for the ceiling. Floors are covered with black marbled linoleum with inlaid design and border in white, from the Armstrong Cork Co. The fine black marble mantel and the fireplace fittings are from Todhunter, Inc.; the mirror over the mantel is from The Nurre Companies, Inc. Lighting fixtures were made by the Cassidy Co. Completing the background are the Venetian blinds made to the measure of the windows by Columbia Mills. The two-toned oval "Seamloc" rug is from the L. C. Chase Co. Each piece of furniture was made for the room by the Baker Furniture Factories. The striped satin and figured linen upholstery materials, also the sateen curtain lining, were supplied by Marshall Field & Co., Wholesale. Curtain linen and the homespun on the sofa are from F. Schumacher & Co. Curtain rods, from the Kirsch Co. Lamps and accessories came from Charles Hall, Inc., Paul Hanson Co., Marshall Field & Co., W. E. Lindemann, Pitt Petri, Importer, Inc., John Becker, California Artificial Flower Co. Glassware from A. H. Heisey & Co., Fostoria Glass Co.





## A MODERN RECREATION ROOM FOR FUN AND REST

THIS games room or family lounge is one of the features of the house, and occupies the entire second floor. Walls are painted yellow with three planes of vertical trim at regular intervals, these painted grading shades of yellow. Photo-mural panels (enlarged blue prints) showing sport scenes inset over the fireplace and on two other walls are new and interesting. The furniture is modern, and the color scheme is yellow, gray and blue. Views show (above) the eastward outlook through the Solarium to the roof garden. Below is the south wall with its interesting fireplace for cozyness and cheer. Even on the darkest days this games room is cheerful. The view above (right) shows the special floor pattern inlay for games.



This important second floor room was furnished and decorated with the co-operation of the following firms. Walls are of Celotex from the Celotex Co., and they are painted with "Wallhide" from the Pittsburgh Plate Glass Co. Lighting Fixtures, Cassidy Co. Photo-murals from Leize Rose. Mantel and fire place fittings, Todhunter, Inc. Floor linoleum, Congoleum-Nairn, Inc. Rug, T. J. Breslin & Sons Co. Venetian blinds, Columbia Mills. Furniture: The Simmons Co., Mueller Furniture Co., Grand Rapids Chair Co., Imperial Furniture Co., Mersman Brothers Corp., and Bentley Furniture Co. Fabrics: Marshall Field & Co., Wholesale. Radio, Philco Radio & Television Corp. Accessories: Mitteldorfer Straus, Pitt Petri, Chase Brass & Copper Co., Paul Hanson Co.

Co-operating in building the front bedroom (shown above on page opposite): Walls of Sheetrock from U. S. Gypsum Co. "Mayflower" Wall Paper from Star Peerless Wall Paper Mills. Trim painted with "Wallhide" from Pittsburgh Plate Glass Co. Parquet oak floor from E. L. Bruce Co. Scatter rugs from L. C. Chase Co. Venetian blinds from Columbia Mills. Furniture from Baker Furniture Factories. Mirror over dressing table from The Nurre Companies. Fabrics from Marshall Field & Co., Wholesale, and F. Schumacher & Co. Bedding from The Simmons Co. "Esmond" blankets and "Stevens" spreads from Clarence Whitman & Sons, Inc. Curtain rods, Kirsch Co. Silver from the Gorham Co. Accessories: W. E. Lindemann, Paul Hanson Co., Charles Hall, Inc., Fostoria Glass Co., California Artificial Flower Co.



## BED ROOMS IN THE MODE OF THE PRESENT

THE color scheme of the front bedroom (shown to right), worked up from a smart gray and rose wall paper has a gray rug with border of rose, white organdy glass curtains, American Beauty rose draperies and bedspreads, and an accent of blue in the chaise longue covering and the dressing table bench. Furniture follows the lines of the Empire period, somewhat simplified.



### Furnishings and Decorations Selected by Good Housekeeping Studio

Co-operating in the bedroom shown below: Walls, "Sheetrock," U. S. Gypsum Co. Wall paper, Imperial Paper & Color Corp. Trim painted with "Wallhide" from Pittsburgh Plate Glass Co. Oak parquet floor, E. L. Bruce Co. Venetian blinds made by Columbia Mills. All furniture from Baker Furniture Factories. Bedding, The Simmons Co. "Kenwood" blankets, F. C. Huyck & Sons Co. Curtain Rods, Kirsch Co. Radio, Philco Radio & Television Corp. Silver, The Gorham Co. Accessories: Charles Halls, Inc., W. E. Lindemann, Paul Hanson Co., Mitteldorfer Straus, California Artificial Flower Co.





# NAILABLE STEEL FRAME IS KEY TO



## Good Housekeeping-Stran-Steel House at Century of Progress Attracts Throngs

Fresh Modern Lines, Compact Livability and Staunchness of Construction Much Admired

**H. AUGUSTUS O'DELL** AND  
**WIRT C. ROWLAND**

ARCHITECTS

**DWIGHT JAMES BAUM**

CONSULTING ARCHITECT

**HELEN KOUES**

DIRECTOR GOOD HOUSEKEEPING STUDIO, DECORATIONS AND FURNISHINGS

**T**HE eagerness with which the public today responds to new ideas and new style in quality small homes forecasts a considerable revolution in home building technique—which is bound to make itself felt in the near future. The Exhibition Houses at Chicago's Century of Progress exemplify these new ideas. In design, construction and equipment they mark a new era.

The first of these houses to be completed and thrown open to the public was the smart and trim creation of the Stran-Steel Corporation and associated co-operators, decorated and furnished under the direction of Good Housekeeping Magazine. On Saturday, May 27, when the Exposition opened, fifty-seven hundred visitors inspected this new model home and approved its many interesting features. The next day about seven thousand more, and on Memorial Day over twelve thousand thronged through this house. Many of the first week's

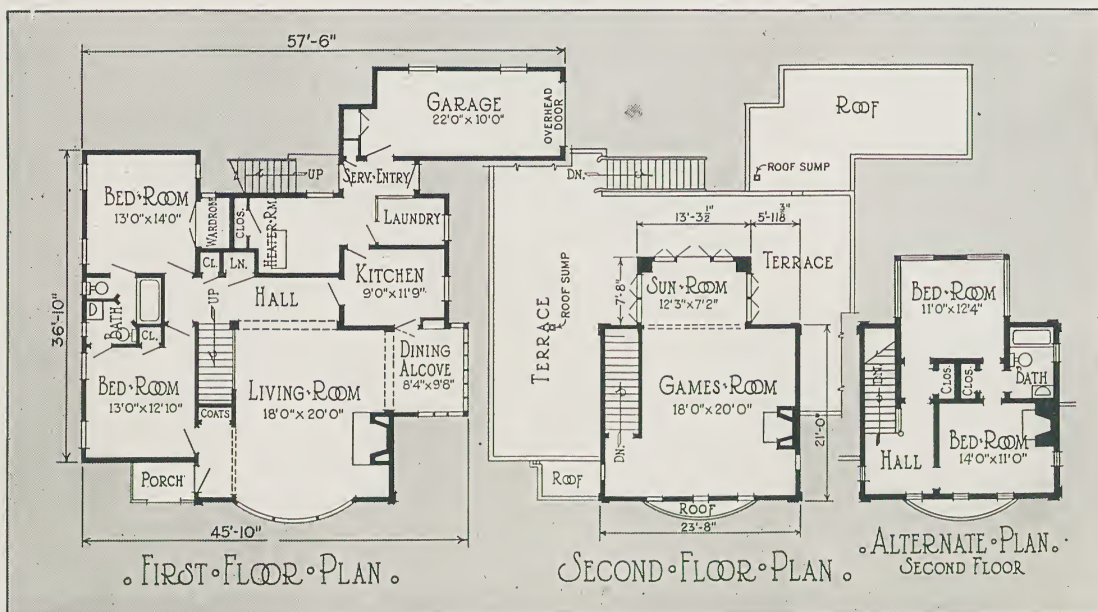
fifty thousand visitors showed the keenest interest in and understanding of the salient points of its construction.

The materials entering into the construction of this house are for the most part well known manufactured products. The framing is decidedly new. This is called Stran-Steel. Two features distinguish it from other types of metal structural members:

First: It is designed so that carpenters, without any special training, lay it out and erect it on the job just as they build lumber.

Second: Collateral building materials such as shiplap, Celotex, Sheetrock and Haskelite-Phemaloid lumber are nailed directly to the steel frame just as to wood.

Stran-Steel consists of 2 x 4" studs and rafters and 2 x 7" joists and of connectors of 16 and 13 gauge steel, formed and riveted so that a nailing groove runs lengthwise on two sides of each stud and joist. When building materials are nailed to these members, the nails



An alternate plan of the first floor would turn the heater room into a maid's room. The space below is then to be excavated for a heater room. The second floor may be made into a recreation room, or into two bedrooms with a convenient bathroom as shown.



# LOW COST OF STRAN-STEEL HOUSE

follow the sinuous shape of the groove and clinch themselves firmly into place.

The exterior of this Century of Progress house is covered with Glasiron Macotta slabs,  $1\frac{3}{4}$  inches thick, 2 feet wide and from 2 to 8 feet long. This material consists of a layer of tough, light-weight Haydite covered with thin gauge steel, which has on its exterior surface a weather resisting coat of porcelain enamel.

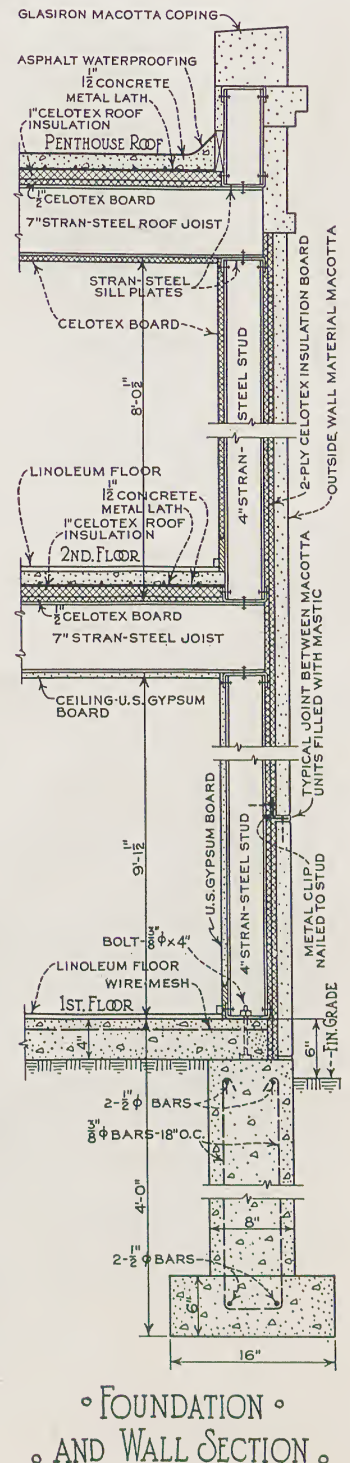
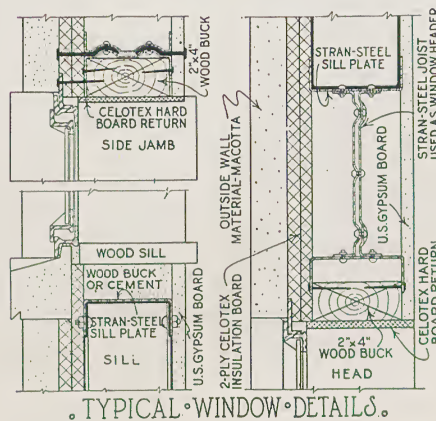
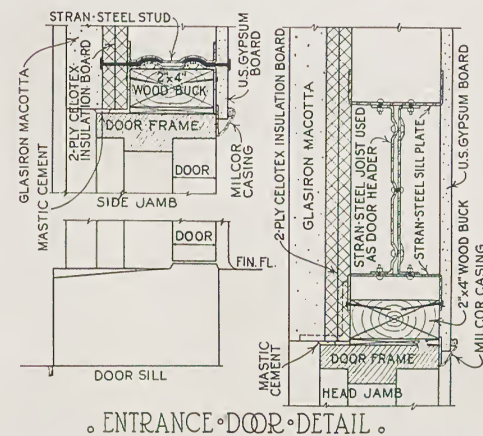
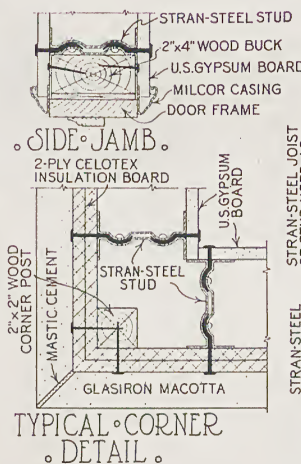
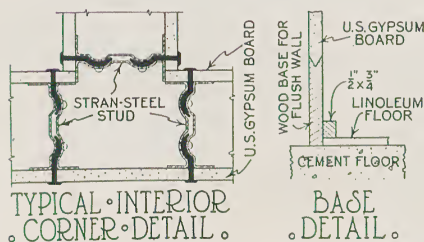
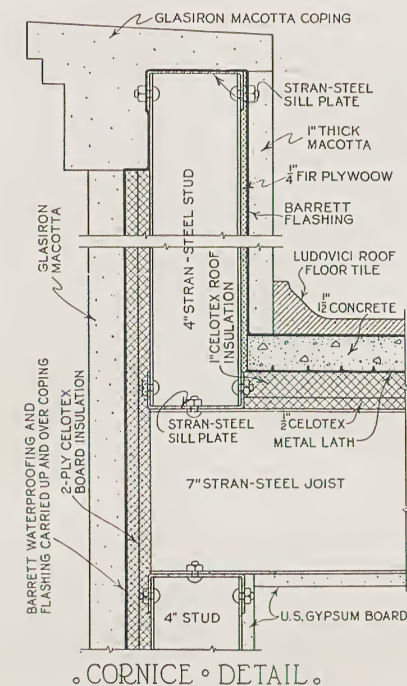
After 1 inch of Celotex insulation has been nailed to the outside of the Stran-Steel frame work, the Glasiron Macotta is then nailed on by means of right angle metal clips, and the joints are sealed with mastic tape. The roof of the house is insulated with Celotex and is covered with three ply roofing laid in pitch, on top of which Ludowici tile has been applied. The interior walls of the down stairs rooms are covered with large size Sheetrock nailed directly to the studs and the joints are closed with a material which will make them invisible when the walls are painted or papered.

No plastering was done on the interior of the house, nor on the exterior. Except in the laying of the concrete floor slabs ( $1\frac{1}{2}$  inches thick over metal lath) no water was used in its construction. This assures rapid erection even in cold weather.

The Good Housekeeping-Stran-

Steel house is a trim, flat-roofed dwelling with a terraced roof, providing an out-door living room for warm weather, reached from the house by passing through a large, many-windowed sun-room. This solarium is the only room on the second floor and since it is open to the air on all four sides, it may be used for a recreation room by day and a family dormitory by night. Because the main rooms of the house are all arranged on the first floor, there is no basement; the furnace room, laundry and service being conveniently located between the kitchen and the one-car attached garage.

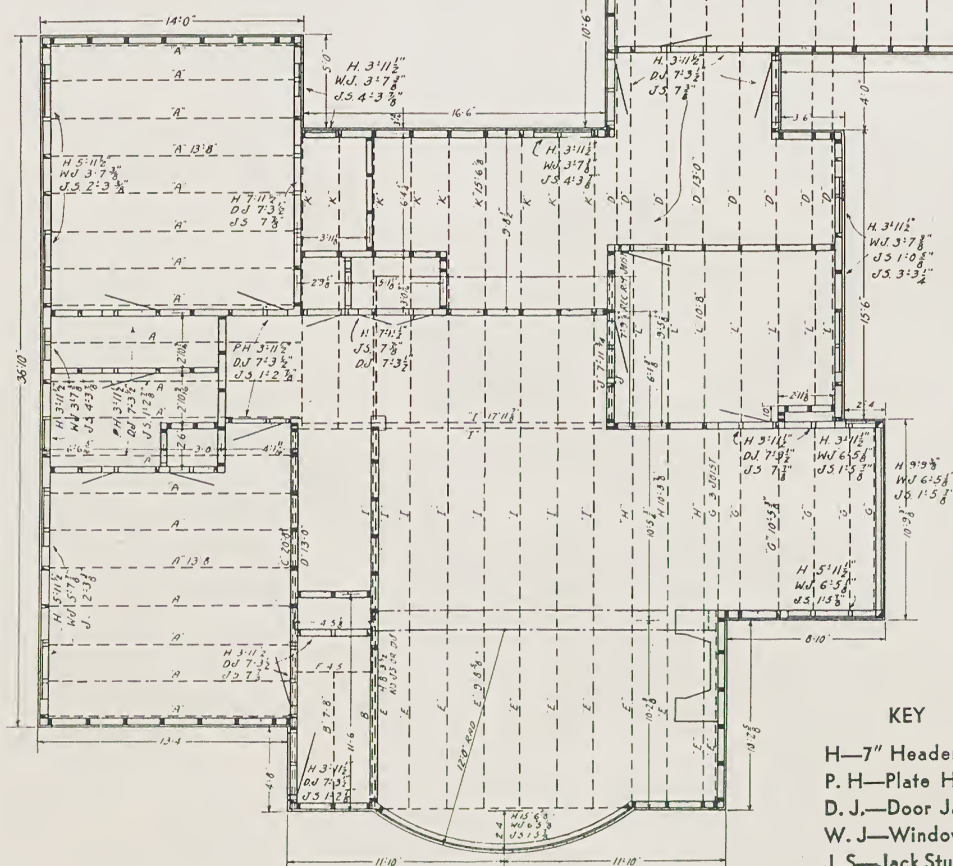
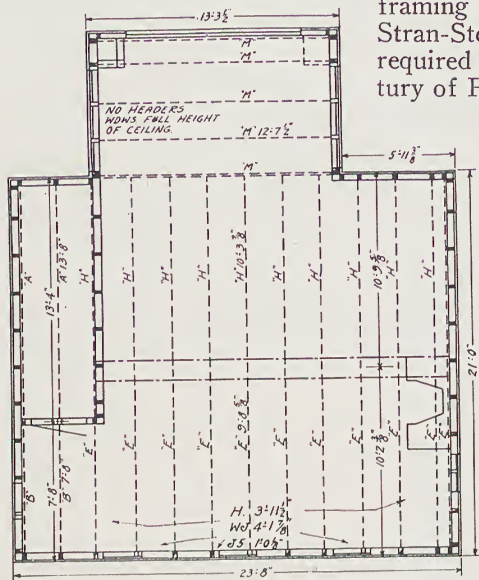
The Stran-Steel House at the Century of Prog-





ress is not a radical invention which proposes to revolutionize home life, the building supply business or the building trades. It was developed by a group of practical builders, a lumber dealer and a manufacturer of steel. It has made possible an enduring type of house construction, which provides, in good taste and comfort, an economical shelter in any type of architecture which the owner may desire.

Since the steel frame is the heart of the Stran-Steel house method, and since building contractors, architects and dealers all over the country will, no doubt, soon be figuring their plans to utilize this newly available framing material, we present herewith, as a typical example, the bill of material and the framing plan for the Stran-Steel members required for this Century of Progress house.



FRAMING LAYOUT - SECOND FLOOR

## STRAN-STEEL FRAMING

### BILL—First Story

19 Joist 7"	13'- 8"	"A"
3-3 Joist 7"	7'- 8"	"B"
1 Joist 7"	20'- 8"	"C"
8-1 Joist 7"	13'- 0"	"D"
11 Joist 7"	9'- 8 5/8"	"E"
1 Joist 7"	4'- 5"	"F"
8 Joist 7"	10'- 5 3/8"	"G"
3 Joist 7"	10'- 3 3/8"	"H"
2-8 Joist 7"	17'- 11 3/8"	"I"
2 Joist 7"	7'- 11 3/8"	"J"
9 Joist 7"	15'- 6 3/8"	"K"
12-7 Joist 7"	10'- 8"	"L"

### 23 Joist Hangers, Single

1 Window Header and Sill	15'- 6 1/2"
1 Window Header and Sill	9'- 9 3/8"
7 Window Header and Sill	5'- 11 1/2"
8 Window Header and Sill	3'- 11 1/2"

2 Door Headers	8'- 3 1/2"
2 Door Headers	7'- 11 1/2"
9 Door Headers	3'- 11 1/2"
7 Door Headers	3'- 11 1/2"

2 Window Studs	9'- 1 1/2"
32 Window Studs	8'- 6 1/2"

4 Window Jamb Studs	6'- 5 3/8"
8 Window Jamb Studs	5'- 7 3/8"
18 Window Jamb Studs	3'- 7 3/8"

19 Window Jack Studs	1'- 5 3/8"
8 Window Jack Studs	2'- 3 3/8"
9 Window Jack Studs	4'- 3 3/8"
2 Window Jack Studs	1'- 0 3/8"
2 Window Jack Studs	3'- 3 3/4"

### 30 Stud Brackets

4 Door Studs	9'- 1 1/2"
38 Door Studs	8'- 6 1/2"
38 Door Jamb Studs	7'- 3 1/2"

8 Door Jack Studs	1'- 2 3/8"
16 Door Jack Studs	0'- 7 3/8"

20 Main Studs	9'- 1 1/2"
120 Main Studs	8'- 6 1/2"

10 Half Studs	9'- 1 1/2"
36 Half Studs	8'- 6 1/2"

280 Lineal Ft. Half Studs	14 ft. Lgths.
---------------------------	---------------

900 Lineal Ft. 3 3/4" Plate	20 ft. Lgths.
-----------------------------	---------------

250 Corner Plate Brackets	
---------------------------	--

500 Lineal Ft. Bridging	
-------------------------	--

180 Stiffening Brackets	
-------------------------	--

10 Joist Tie Plates	
---------------------	--

## STRAN-STEEL FRAMING

### BILL—Second Story

2 Joist 7"	13'- 8"	"A"
4 Joist 7"	7'- 8"	"B"
1 Joist 7"	13'- 0"	"D"
11 Joist 7"	9'- 8 5/8"	"E"
11 Joist 7"	10'- 3 3/8"	"H"
5 Joist 7"	12'- 7 1/2"	"M"

### 14 Joist Hangers, Single

5 Window Headers & Sills	3'- 11 1/2"
--------------------------	-------------

1 Door Header	3'- 11 1/2"
---------------	-------------

20 Window Studs	8'- 0 1/2"
-----------------	------------

10 Window Jamb Studs	4'- 1 3/8"
----------------------	------------

5 Window Jack Studs	2'- 2 5/8"
---------------------	------------

5 Window Jack Studs	1'- 0 3/8"
---------------------	------------

10 Stud Brackets	
------------------	--

2 Door Studs	8'- 0 1/2"
--------------	------------

2 Door Jamb Studs	7'- 5 3/8"
-------------------	------------

45 Main Studs	8'- 0 1/2"
---------------	------------

260 Lineal Ft. 3 3/4" Plate	20 ft. Lgths
-----------------------------	--------------

52 Corner Plate Brackets	
--------------------------	--

140 Lineal Ft. Bridging	
-------------------------	--

12 Half Studs	8'- 0 1/2"
---------------	------------

5 Half Studs	14'- 0"
--------------	---------

14 Stiffening Brackets	
------------------------	--

8 Joist Tie Plates	
--------------------	--

### Porch Roof

1 Joist 7"	7'- 8"
2 Joist 7"	4'- 6"
5 Joist 3 5/8"	4'- 7"

5 Stud Brackets	
-----------------	--

2 Joist Tie Plates	
--------------------	--

### Stairs

3 Studs 3 5/8"	14'- 0"
----------------	---------

10 Stud Brackets	
------------------	--

### Parapet Wall

140 Lineal Ft. 3 3/4" Plate	20 ft. Lgths
-----------------------------	--------------

80 Studs 3 5/8"	3'- 10 1/2"
-----------------	-------------

80 Stud Brackets	
------------------	--

100 Corner Plate Brackets	
---------------------------	--

120 Lineal Ft. 3 3/4" Plate	20 ft. Lgths.
-----------------------------	---------------

60 Studs 3 5/8"	1'- 5"
-----------------	--------

60 Stud Brackets	
------------------	--

80 Corner Plate Brackets	
--------------------------	--

80 Lineal Ft. 3 3/4" Plate	20 ft. Lgths.
----------------------------	---------------

45 Studs 3 5/8"	1'- 7"
-----------------	--------

45 Stud Brackets	
------------------	--

60 Corner Plate Brackets	
--------------------------	--

### KEY

H—7" Header  
P. H—Plate Header  
D. J.—Door Jamb  
W. J.—Window Jamb  
J. S.—Jack Stud



# Standard Construction Methods Used

## Century of Progress House

### Combines Quality Materials

**T**HOUGH the framing of the Stran-Steel Good Housekeeping home at A Century of Progress is entirely of steel, it is not a factory-built proposition, but is assembled on the job with regular building labor just as though lumber were used. This is made possible by the novel feature of Stran-Steel construction by which wall, flooring or roofing materials are readily nailed to the steel frame.

## Macotta Panels for the Exterior

The outer covering of the house is a new departure in residential construction, though similar treatment has been used to some extent for decorative purposes on commercial buildings. This covering, known as Glasiron Macotta, a product of the Maul Macotta Co., is a light weight masonry unit, the face of which is Pemco architectural porcelain enamel, from the Porcelain Enamel Mfg. Co., fused on Toncan Iron, a product of the Republic Steel Co. The light weight concrete backing takes the dead and live building loads, provides insulation and in general serves all the common functions for which masonry materials are used. Edges of the enameled face of Macotta panels are protected with a small bead of Enduro Stainless Steel, making a durable, weather-proof panel of enduring porcelain. These panels are made in a wide range of sizes, and of course any color or combination of colors is possible. The porcelain enameled iron is firmly and permanently anchored to the concrete backing by a patented process. The Macotta unit ranges from 1" to any desired thickness, with approximately 20 square feet of surface area as its limit for face dimensions. No special dowels or other exceptional methods of attachment are necessary.

Those who picture a porcelain enamel exterior as a too bright surface like a china dish, have a revelation awaiting them when they visit the Chicago house. There is absolutely no glare to the Glasiron Macotta panels. The colors will not fade and it will never be necessary to paint the walls of this house. While the general appearance is that of smoothly finished blocks of stone or marble, it is far superior; stone absorbs dirt while porcelain enamel remains clean for a long period of time and, if necessary, can be easily cleaned with soap and water. There is nothing about the exterior appearance which violates the standards of good taste to which people have been accustomed. It looks, in fact, like an exceedingly neat, trim job of stone work until examined very closely.

While this type of construction provides a fire-proof house of exceptional durability and beauty in any style of architecture from English cottage to cubical modern, it is no more expensive than any good construction, since the house never settles, doors and windows never stick and plaster is permanently free from cracks. The Stran-Steel house at Chicago, a small home in the attractive modern style, up to the minute in every detail, can be duplicated for \$9000.00 in Chicago and possibly for less in other communities, depending on labor costs.

The companies collaborating in this development feel that they have for the first time brought practical steel housing within reach of the average man, thru the already established channels of the building material merchants and the building trades.

## Celotex for Insulation

For the sheathing of this house two layers of Celotex Building Board were used supplying side wall insulation. The sheets were nailed directly to the nailing studs used in Stran-Steel construction. Both horizontal and vertical joints were offset between the layers of Celotex to provide continuous insulation free from any openings.

The floor of the second story games room, promenade roof and roof of the solarium were formed by nailing a layer of  $\frac{1}{2}$ " and 1" Celotex over the steel joists. Over this  $1\frac{1}{2}$ " course of Celotex was poured a  $1\frac{1}{2}$ " concrete slab reinforced with metal fabric. The Celotex provides both insulation and sound-deadening as it forms a resilient pad between the joists and the monolithic floor.

For the interior finish of the second floor games room, Celotex Building Board, painted, was used, serving as the acoustical finish on both walls and ceiling. It is applied directly to the studs and to furring on the ceiling. The trim and paneling are formed by cutting the Celotex Building Board, after which it is cemented and nailed to the underlying layer.

## Hairline Trim

The interior trim in this house illustrates the last word in hairline effect, being practically invisible. Milcor metal trim surrounds the door openings, forming a neat, strong border for the gypsum wallboard. The base is a wood strip  $9/16 \times 5\frac{3}{8}$  inches, with a V-groove at the top to take the dovetail V-edge of the wallboard, making a base practically flush with the upper wall.



Close up photo of exterior wall construction showing the sheets of Celotex, 1 inch thick, nailed to the Stran-Steel studs; then the Macotta units are attached by means of right angle nailing clips of steel. Photo shows the Enduro stainless steel edge around each Macotta unit. The joint is filled with caulking mastic.



## Sheetrock for Walls and Ceilings

Walls, ceilings and partitions throughout the first floor of the House have been finished with Sheetrock, a product of the U. S. Gypsum Co. This is a unit material adaptable for modern construction. Made of mineral gypsum, it was used in three-eighths inch thickness, in forty-eight inch width, and in various lengths. It was nailed to the Stran-Steel supports in the same simple way that it is nailed to wood studs or joists.

Because Sheetrock is sawed with the ease of lumber, odd-sized pieces were cut to shape where required and were nailed in place. Joints were armored against cracking with the patented Sheetrock Armored Joint System, which consists of a thin strip of metal anchored across joints with a special gypsum cement.

Sheetrock does not warp or buckle as a consequence of weather changes, but remains permanently in place, smooth and unbroken. Over its smooth, ivory-colored surface, any type of decoration may be applied. In the two bedrooms, wallpaper was put on, making a delightful finish; in the living room and dining alcove, sanitary canvas for painting.

## Flat Roofs Need Careful Waterproofing

The roofing construction used on the Stran-Steel house at the Fair is Barrett's built-up roof—the well known "Barrett Specification." This is the same roof which protects such world-famous buildings as the Empire State, the Chrysler, the Woolworth, the Waldorf-Astoria Hotel, etc. Thus, in its roof as well as in other respects, this home lives up to its description as "a house built on the construction principles of the skyscraper."

The Barrett Specification Roof is composed of alternate layers of coal-tar pitch and roofing felt. The application, in the case of this home, has been made over a concrete "deck." Five plies of roofing felt (first grade rag stock saturated with coal-tar saturant) and six moppings of hot Barrett Specification coal-tar pitch are laid over the concrete. On top of this material was then laid the finishing surface of promenade tile (for the terrace) and gravel (for garage). The gravel is imbedded in a hot dipper-pouring of coal-tar pitch. The finished roof presents a wearing surface which is durable, fire-safe, positively waterproof and practically indestructible.

## Tile for Terraces

"Ludowici" Promenade tile furnished by the Ludowici-Celadon Co., for the roof terrace are made of carefully selected shale and fire clay, a full inch in thickness with deep channels to insure a proper bond whether set in mastic or cement. These tile are made in various sizes, colors and textures to harmonize with any type of architecture and color scheme. They are particularly adapted to flat roofs of steel constructed homes. The tile specified for the Century of Progress house are deep red squares, the regular promenade tile of this well-known company.

Front entrance door knocker, handle and escutcheon specially designed for the Century of Progress House by the National Brass Co.

## Door Hardware Specially Designed

Perhaps, the most outstanding hardware on any residence is the front door set. Therefore, on the Stran-Steel house at A Century of Progress particular effort has been placed on this unit. The National Brass Co., which furnished the builders hardware, had its designing staff, under the suggestions of Miss Helen Koues, Director of the Good Housekeeping Studio, design a special door handle, escutcheon and door knocker to harmonize with this ultra-modern building. They were designed in the modern style having a keynote of beauty in simplicity and they were finished in dull chrome, high-lighted with bright chrome which lends a pleasing effect.

Among the other more noticeable units are the cylinder door locks, which are built on the patented National Brass tubular principle. The cylinder is practically impossible to pick and the construction of the bolt makes it impossible to spring by inserting a blade between the casing and the door.

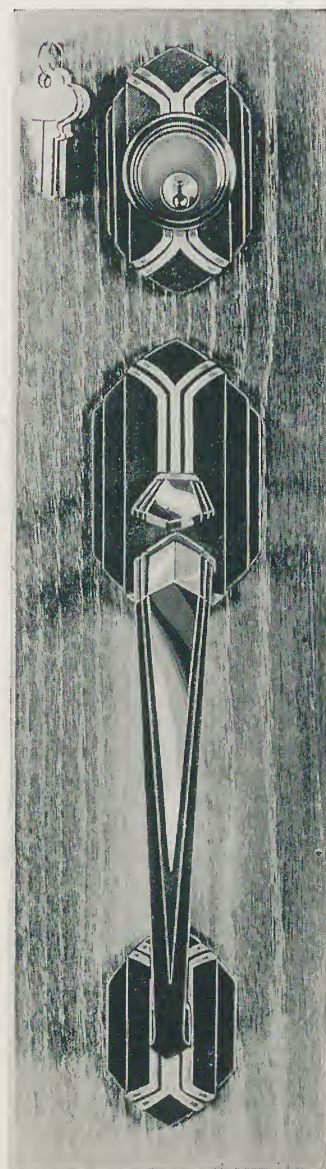
The inside door latches are also built on the patented tubular principle, which permits an easy, free motion of the latch while the knobs have a smooth, quick action.

The beautiful satin-chrome bands of metal trim on the blue-green front door and the satin chrome door handles and hinges throughout the house were manufactured by the National Brass Company.

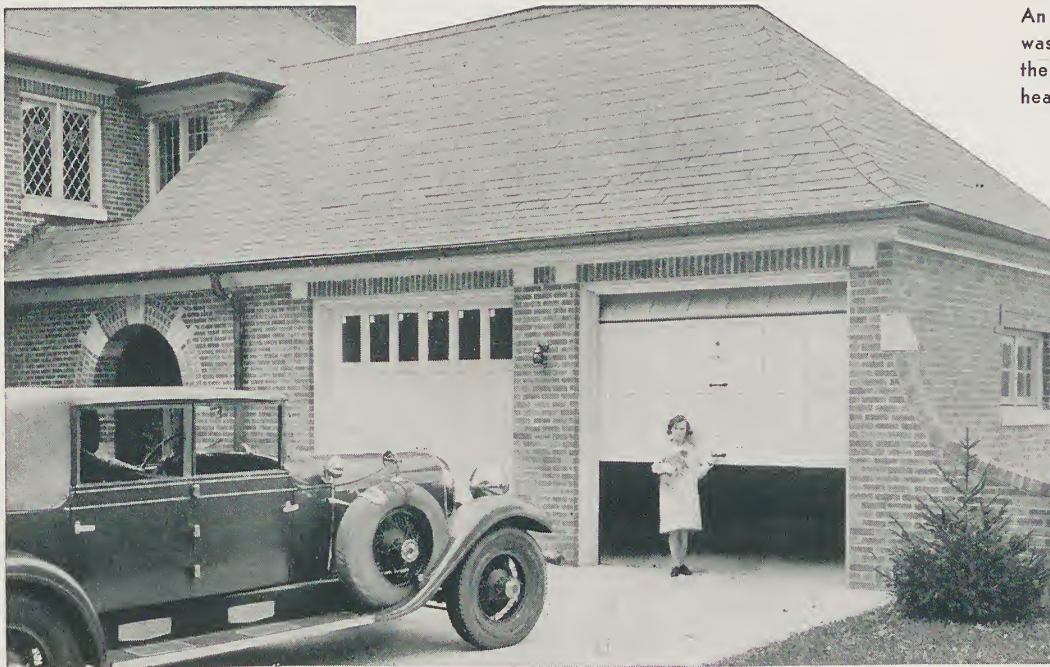
## Haskelite Materials

The closet under the stairs provides a convenient place for a "Ply-met" Clothes Vault in which clothes may be kept with no fear of moths.

The same firm supplied the Phemaloid Compound Lumber — Fire Resistant which was used for lining the garage.







An easy operating garage door was selected by Mr. Strand for the World's Fair House, an "Overhead Door" by the Overhead Door Corp.

## Easy Working Garage Door

The "Overhead Door" manufactured by Overhead Door Corporation, was selected as the door to be installed on the garage which is attached to this Exhibit House. The "Overhead Door" is adaptable for installation on old or new private garages, public garages, factories, warehouses, greasing stations, boat houses, airplane hangars and other similar buildings as well as for markets and shop fronts.

A regular stock door, size 8'0"x7'6" was installed on this garage. Doors, sizes 8'0"x7'0" and 8'0"x8'0" are also carried in stock. Any or all sections may be arranged for glass at no additional cost, but glass is not supplied unless specified.

Unless otherwise specified the door is constructed of clear kiln dried Sitka Spruce stiles and rails, full 1 3/4" thick, and a three ply 3/8" fir laminated panel. All joints are waterproofed glued and steel doweled. Special doors may be constructed of other materials and may be of special design to correspond to the general architectural scheme of the house.

All rollers and moving parts of the hardware are of ball-bearing construction. The tracks are made of heavy gauge steel and are inclined rearwardly from the jambs, assuring a tight fitting door. The hinges are of a special off-set type, each being assembled with a sleeve tubing through which the roller stem floats, eliminating roller friction. A special locking device working in combination with a Yale Cylinder Lock securely locks and bolts the door across its entire width. Doors may be locked or unlocked from either side and may be keyed alike or separately. The door is counter-balanced by means of two oil-tempered extension springs, size of which depends upon the weight of the door.

Electric operation, so that the door may be operated from the driver's seat by means of a key switch located in the driveway, is also available.

## Fenestra Steel Windows

Fencraft and Fenwrought casements, screened type, were used in the Stran-Steel house. Fenwrought screened casements have Fenestra flat screens with steel frame and bronze mesh which fit tight against the inside of the casement frame. A locking handle is attached to the frame and engages a keeper on the swing leaf, drawing the latter into weathertight and storm-proof contact. A push bar adjuster at the sill opens or closes the swing leaf or holds it in any desired position. Both locking handle and adjuster are designed to operate through the screen, thus eliminating all necessity for leaning out.

Screens cover only the ventilating portions of the windows and may be set in place or removed in a jiffy, although they are neither conspicuous nor inconvenient if left in place the year round. If removed for storage, they do not need to be marked, for any window will accommodate a screen from any other window having the same sized swing leaf with locking handle on the same side.

## Polished Plate Glass

This house is glazed throughout with Libbey-Owens-Ford Glass Company's polished plate glass, some of which is 1/8 inch thickness and some of which is 3/16 inch, both made by the continuous drawing process.

## Bruce Flooring

Bruce \*CELLized wood floor tile of oak in herring-bone pattern, the product of the E. L. Bruce Co., was laid in the two bedrooms in mastic over the concrete floor. The color treatment gives a rich, warm tone harmonizing with rugs and drapes.

Bruce flooring is manufactured in many different kinds and grades of wood adapted to the needs of homes from largest to smallest where floor beauty is desired.



# Heating and Air Conditioning

The heating equipment in the Stran-Steel Model House is as modern as the design and construction of the building itself. For the heating is supplied by the Sunbeam No. C-2 gas-fired air conditioning system, a product of The Fox Furnace Company, a division of American Radiator and Standard Sanitary Corporation.

This Air Conditioning system supplies heating, thermostatically controlled—and in addition

Automatically humidifies the air to the proper degree;

Eliminates dirt, dust, bacteria and foreign matter by the use of air filters;

Provides air circulation, from 4 to 6 air changes each hour;

Supplies cooling ventilation in hot weather through the operation of the electric blower.

Refrigeration equipment can be added to the Sunbeam when dehumidification and artificial cooling are wanted in summer. The same ducts that distribute the warm, conditioned air in winter are also used for the cool, conditioned air in summer. However, in a small house there will be little demand for such equipment.

The C-2 Sunbeam has a register capacity of approximately 100,000 Btu per hour with a CFM delivery of approximately 1200. Humidity is supplied by a spray type humidifier. Relative humidity is automatically regulated by a Humidistat.

All warm air registers and return air grilles are located in the baseboard and will be finished to harmonize. All have a uniform height of 5 inches which brings them flush with the top of the baseboard and makes the registers inconspicuous.

An unusual feature of the installation which was designed by Fox Furnace Company engineers, results from the fact that the heater room is on the first floor. The house has no basement. The warm air ducts rise from the unit to the heater room ceiling; pass along the ceiling joists and then drop down the stud spaces to the floor level where the registers are placed. The recirculating air is drawn upward through the stud spaces, across the ceiling and drops down into the blower compartment.

A  $\frac{1}{4}$  H.P. motor supplies the motive power for the blower. Controls on the Sunbeam Air Conditioning Unit include safety pilots, blower switch and limit control.

During the record hot summer days of June at the Century of Progress this Air Conditioning System ably demonstrated the cooling effect of circulating air in a well insulated building.

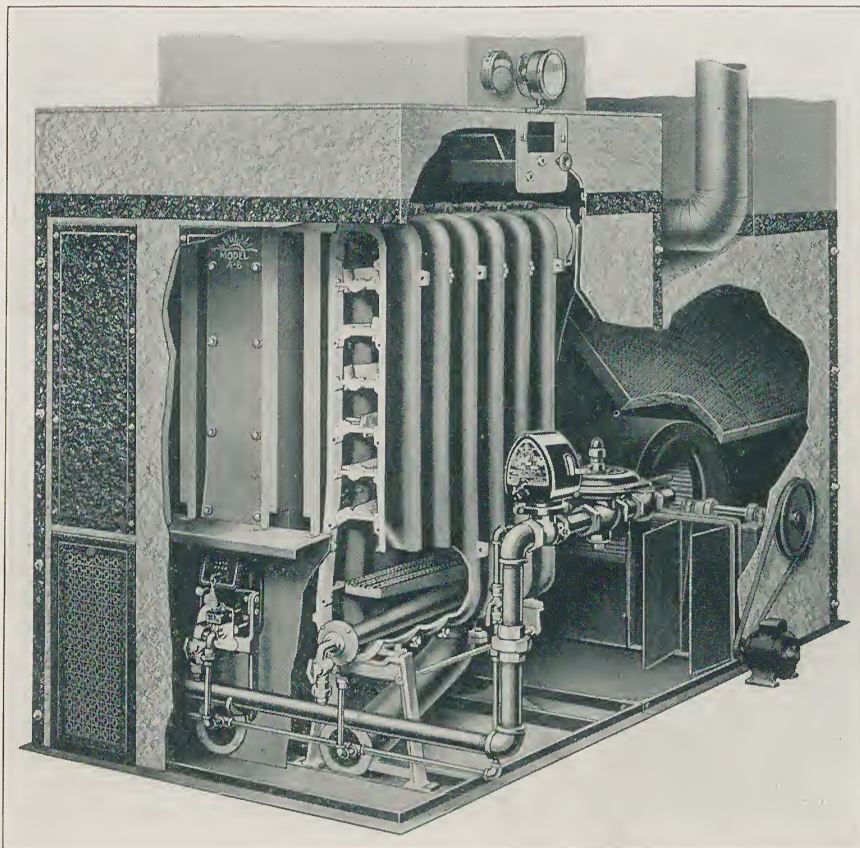
It is reasonable to expect that the desire for air conditioning will be created in many of the millions of Century of Progress visitors when they see it installed in the Stran-Steel House which is so profoundly influencing the standards for future residential design, construction and equipment.

## Crane Bathroom Fixtures

The bathroom is distinctive in design, because it must serve two bedrooms and a maximum of four individuals. Therefore, consideration was made for allowing privacy to as many as three people. Divided into three distinct sections, all separated by doors, we find a triple duty room, in approximately the space of a single bathroom.

In the center section is a recessed Corwith tub with shower equipment over it. Entrance from one bedroom to the tub is through a section containing a Norwich lavatory and Siwelclo closet. The closet is of particular interest in that it has a dip in the rim. This feature is highly recommended by doctors and sanitary experts, since it is considered both hygienic and helpful. Compact and quiet, it matches in design the straight simple lines of the Norwich lavatory and Corwith tub. The lavatory, though only 24" wide, is designed with ample rectangular basin and sufficient surface for conveniently setting articles on the slab. Supported on two graceful metal legs, it gives the appearance of a fixture designed for a luxurious bathroom, though the fixtures are all moderate in price.

A Santon water closet occupies the third section of the room, which opens onto the second bedroom. All of the fixtures are in India Ivory.



This illustration shows the interior construction of the Sunbeam No. C-2 Air Conditioning Unit as installed in Century of Progress House including such features as the blower, filters and spray humidifier.



## New Ideas in Lighting

The lighting fixtures designed and manufactured by the Cassidy Company, Inc., in collaboration with Miss Helen Koues of Good Housekeeping Studio and Dwight James Baum, Architect, embody a new thought in modern home lighting. The basic principle is one of reflected light emanating from a concealed source. This provides a means of attaining artistic effects heretofore impossible in residential work.

The living room fixtures are so designed and constructed that the light is projected against a gold glass lyre mirror and then is reflected upward into a crown-like top of bent crystal rods. The bedroom fixtures also have the light projected upward from a hidden source onto bent crystal rods, thus producing a spill of light most pleasing and artistic in effect.

## Steel Cabinets in the Kitchen

Dieterich steel cabinets were selected for the Stran-Steel house for a number of reasons. First, they are decidedly modern. Great care is taken to make every cabinet a perfectly finished job. Special methods of welding, reinforcements of joints, insulation and gummed rubber cushioning make vibration impossible and result in an exceptionally fine product. The doors in Dieterich cabinets are practically soundless in ordinary operation and remind one of a well constructed refrigerator door being closed, except that there is no click of the latch.

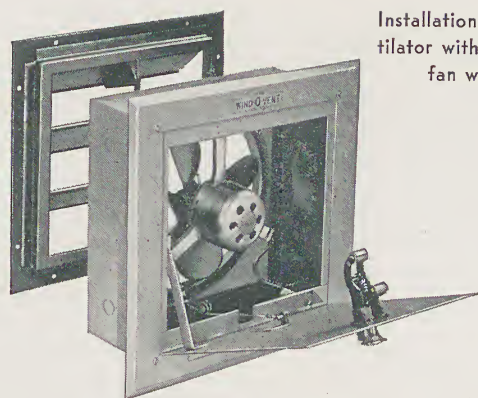
The kitchen of a house may have the finest equipment available in other respects and still be unattractive if the cabinetry is not well arranged and attractive in appearance. The sink, work surfaces, and the cabinetry in a kitchen are probably the most permanent things in the room. Other equipment such as the stove and refrigerator may be replaced from time to time; but the home owner expects that the cabinets will be permanent when they are first installed. For that reason, Dieterich cabinets are constructed for permanence and a great deal of care is given to their finish and appearance. The hardware has been carefully selected for beauty and the finest possible finish is applied to the cabinets themselves.

A particularly appropriate feature of Dieterich cabinets in relation to the Stran-Steel house is their ease of installation. The back of wall cabinets is recessed so that it is not necessary to ground into the plaster or surface of the wall in order to receive the cabinets. Although this is a particularly desirable feature in remodeling old houses where the plaster walls have become brittle, it is also very modern and decidedly in keeping with the Stran-Steel method of construction.

## Diehl Kitchen Ventilator

The Diehl Windo-O-Vent wall cabinet ventilator as installed in this house is excellent for removing kitchen odors, smoke, steam and vitiated air from the home. It is handsome but not conspicuous and provides a touch of completeness essential to every modern home.

Installation is usually made when building is erected. The unit will fit any wall 9 inches or more in thickness. The cabinet containing the ventilating fan fits flush with the inside wall. The louvres flush with the outside wall. When the door of the cabinet is opened, the motor starts



Installation of Diehl wall ventilator with door which starts fan when opened.

automatically and the louvres open. Double weather protection is provided by the louvres and the door.

The ventilator is smooth and quiet in operation and withdraws approximately 800 cubic feet of air per minute. This is equivalent to a complete change of air once every minute and a half for the average size room. Current consumption is 35 watts, the unit costing no more to operate than an ordinary electric light bulb.

## Electric Dish Washer

The General Electric Dishwasher and Dishwasher-Sink combination as installed here represent the culmination of years of painstaking experimentation to perfect a simple, satisfactory electrical method of dispensing with the age-old, most disagreeable drudgery in housework.

The styling of these new units was influenced by the growing tendency to build-in all major kitchen units, an almost impossible accomplishment with the heavy cast iron enamel sinks of the past twenty years, because of the awkward curvatures and radii involved by the demands of their manufacturing processes.

Accordingly, General Electric sink tops are stamped from sheet metal to match adjacent counter tops, and the space below is utilized for cabinets which can be built in of mill work to match adjacent construction, or purchased complete with dishwasher-sink tops.

Four models are at present available, including a separate dishwasher unit and three combination dishwasher-sinks. The dimensions of the dishwasher unit only are 25"x24" and this model is recommended where the present sink is to be retained.

These combination dishwasher-sinks are furnished in sizes as follows: 25x44½", 25x62", and 25x79½".

The combination dishwasher-sink tops can be furnished in Stainless Steel or Monel Metal.

## A. B. C. Laundry Equipment

The laundry in the Stran-Steel Good Housekeeping house conveniently situated next to the kitchen is equipped with the A. B. C. Spinner and the A. B. C. Ironer furnished by Altorfer Brothers Company. The point is made regarding the A. B. C. Spinner that it performs every operation of the entire laundry in absolute personal safety—it washes, rinses, blues, starches and dries with thoroughness and economy, and yet the most careless operator or the most inquisitive child cannot be harmed by the mechanism which is entirely sealed within the smooth exterior.

The Model X A. B. C. Ironer has an automatic pressing device, a chromium plated ironing shoe that is rust-proof and scratch-proof, a 26-inch roll with full open end. The mechanism of the ironer is fully sealed in.



# Kelvinator Refrigerator

A Kelvinator de luxe model D-75 is installed in the kitchen of Stran-Steel house. This is an all-porcelain refrigerator, capable of freezing 16.5 pounds of ice, with a storage space of 7.8 cubic feet and a shelf space of 16.5 square feet. It is really "4 refrigerators in one," offering these four distinct refrigeration services. Zone 1 keeps the food chamber at the proper temperature for the preservation of food. Zone 2 provides automatic fast freezing in the ice trays. Zone 3 provides automatic below freezing temperature in the frost chest for the storage of foods. Zone 4 provides automatic *super-fast* freezing—from water to ice in 80 minutes.

Additional features of this refrigerator include: sturdy construction of spruce and steel—thick Kelvatex insulation—quadruple-plated chromium hardware—electrically lighted interior—telescoping bottom shelf to allow for the storage of tall bottles—distinctive French grey trim, which adds to the beauty of the gleaming white porcelain exterior—and a defrosting system that automatically maintains food preservation temperature and ice cubes in the trays while the cooling unit is defrosting.

## Formica Kitchen Wainscoat

Formica in a cream color is used for the kitchen wainscoat. This material is available in over 30 colors, making it possible to harmonize the wall covering with any color scheme. The rather novel color effects of this kitchen are carried out perfectly by the Formica.

The material is in the form of a wall board with the Formica facing on both sides of the board. It comes in large sheets 36"x84", 36"x60" or 36"x42" and goes up on the walls very rapidly with a minimum of labor by carpenters.

The material is remarkably stable as to color, can be washed with soap and water or solvents like alcohol or benzol or even paint remover, without injury. It does not craze or crack or lose its elasticity with age and therefore the wall is practically free from future upkeep expense.

## Venetian Blinds at the Windows

The windows of the Stran-Steel house are equipped with Columbia Residential Venetian Blinds. This type of blind is particularly adapted to residential use because of its narrow 1¾" slats and its unobtrusive hardware. Its simple decorative lines are especially suited to home interiors. It is easy and accurate in its operation and completely controls the light and air coming through the window.

The functions of the Residential Venetian Blinds are practical as well as decorative. These blinds regulate the daylight coming into the rooms without impairing or in any way shutting off ventilation. They insure privacy without the need of first closing the window and they reflect the natural daylight into the far corners of the rooms without unduly subjecting the area nearest the windows to over-lighting.

Two cords govern all operations. One raises and lowers the blind, the other tilts the slats.

Since the cost of these blinds is little more than a window shade and awning combined, they're extremely economical in the long run. Their installation does

away with shades and awnings and eliminates the necessity of taking down and putting up the latter each season.

The blinds as used in the Stran-Steel house are all done in white, with yellow tapes in the living room and yellow in the recreation room. In the other rooms the tapes are white to harmonize with these flat colors.

## Linoleum Floors

Armstrong's Black Marbelle Linoleum is used for the floors of the entrance hall, living room, dining alcove, and the hall connecting the living room with the bedroom in the Good Housekeeping Stran-Steel House. Inset in the living room floor are bands of white linoleum to form a border, and a white medallion in each corner. In the dining alcove, two strips of white were laid to form an oval in the center.

Another attractive Armstrong Pattern, with blue and white marbled blocks, is used on the floors of the kitchen and laundry. The decorative effect is enhanced by a border of plain blue linoleum and white strips.

Walls of the laundry to wainscoat height are covered with blue Linowall, a new wall covering recently introduced by the Armstrong Cork Company. Durable and easy to keep clean, Linowall is made in a variety of colors and patterns which lend themselves to all rooms where a washable type of wall covering is desired.

The floor of the games room, which is covered with blue linoleum manufactured by Congoleum-Nairn, Inc., is inlaid in yellow with a special games design at one end and with a shuffle board pattern at the other, thus providing a surface suitable for either play or dancing.

The interesting surfacing of the bathroom floors and walls, with marbled Congoleum in new color tones, strikingly attest the increasing popularity of Congoleum-Nairn products for bath room use.

The striking linoleum floors are thoroughly in keeping with the blended modern and period spirit which marks the Good Housekeeping Stran-Steel House. In addition to providing a pleasing decorative effect, they are thoroughly practical and easily maintained. Linoleum floors were cemented over lining felt.

## Sanitas Wall Lining

Sanitas Prepared Canvas No. 4801 was used over the Sheetrock in living room and halls, kitchen and laundry of the Stran-Steel exhibit house. This is a uniformly stiffened muslin with a slightly rough surface forming an especially good ground for paint and any decorative work. Being slightly stiffened, it hangs and butts perfectly. This lining cannot be injured by moisture. The widths are 45 and 36 inches, and it comes in 12, 24 or 48 yard rolls. One advantage of a lining is the fact that any later redecoration done on it is equally protected from cracks in the walls.

## Paint for Interiors

The modern note throughout the Stran-Steel home is nowhere better exemplified than in the painting.

Wallhide oil paint, a product of the Pittsburgh Plate Glass Co., is used over the Sanitas in the living room and to give the lovely color to the Celotex walls and ceiling of the games room. This product is a much talked of paint. It is built on the "controlled penetration" theory. In the past, paints depended for anchorage to the surface over which they were applied on "penetration." Translated, this meant that the oil soaked into the object they were designed to protect



and left a powdery deposit of pigment which easily wore away. Through a special treatment of the vehicle, the oil in Wallhide is kept in the pigment where it belongs. Thus the protective film is kept permanently alive and elastic.

This revolutionary paint makes possible the application of one or two coats of paint to a wall and the completion of the job in eight hours' time.

## Knap & Vogt Fixtures

K-Venience clothing carriers were installed in the clothes closets to increase their capacity and to promote order in the wardrobe. These carriers are ball bearing rods gliding smoothly in and out of square adjustable sleeves attached under the shelf in any closet. Clothes hangers are hung on this rod. When the slide is pulled out, the clothing is brought out into the room where it can be easily inspected. This simple device increases storage space and makes clothing more easily accessible. The extension rods come in many sizes ranging from 12 to 60 inches. They are attractive, highly polished, with nickel finish.

Lack of closet space is often largely a matter of lack of full utilization of the space available. With careful planning and fixtures that are adapted to each individual problem, a cramped, crowded closet can usually be turned into a convenient, easily accessible wardrobe that will accommodate twice the amount of clothing.

Although the closets in the Stran-Steel-Good Housekeeping house are large, their capacity is greatly increased by the thoughtfulness of the builders in supplying the Knap & Vogt Manufacturing Co. K-Venience clothing carriers.

"Sunbeam" toast witch, "Mixmaster" in kitchen and smoothing iron in laundry, all made by Chicago Flexible Shaft Co., help to lighten the housekeeping labors.

## Magic Chef Range

A No. 756R white and black Magic Chef range, product of the American Stove Company, is installed in the kitchen of the Stran-Steel-Good Housekeeping house. This range has the modern improvements including the automatic top lighter which ignites any top burner instantly by a twist of the valve. No matches to light with this automatic lighter; no button to push. Each burner when turned on automatically lights itself from the central pilot light.

The Magic Chef is equipped with the famous "Red Wheel" Lorraine oven heat regulator which watches your baking automatically.

## Stov-Dome Exhaust for Cooking Odors

Above the range in the Stran-Steel house is a dome or canopy equipped with a small electric fan to capture the rising cooking odors and heat at their source over the range and lead them out quickly through the exhaust flue. This is a welcome innovation for the housewife in these days of the small, compact kitchen. It has been developed by the Universal Blower Company.

The dome is built of steel, rustproof, and finished with enamel to match the color of the range. Installation is simple as unit is carried on brackets fastened to the wall with toggle screws. Standard sizes are 38 x 26, 47 x 28, and 54 x 29 inches. A simple induction motor using a small amount of current drives a 6-inch fan in the exhaust head.

---

# Not a Pre-fabricated House

As a result of the wide publicity given pre-fabricated homes, which are still in the idea stage, many of the people who visit the Housing Group at A Century of Progress think that there are large factories equipped to manufacture pre-fabricated homes in room and panel units, suitable to a variety of room arrangement and a wide range in price.

As a result of this misleading publicity, people believe that there are associated with these large factories which make pre-fabricated houses, home financing organizations which help the prospective home owner buy his lot, build his house, and furnish it.

Such a set-up is quite impractical, nor is there any basis in the economic conditions of today for entertaining hopes that such a system will be available for the average man within the next generation.

The Stran-Steel House is not a pre-fabricated house in the sense that the popular write-ups in the newspapers and magazines have led the public to believe. Stran-Steel is of course pre-fabricated just as brick, gypsum board, fiber board, plumbing, kitchen equipment, and ordinary lumber are pre-fabricated; in the sense that these steel framing members are completely manufactured. But the building of a house with a Stran-Steel frame calls for the same means of distribution of material, contracting, and labor that the ordinary house with a wood frame requires. Therefore, Stran-Steel is now available for immediate erection in the homes of those who now re-

alize that this is a most favorable time to build a home.

The Stran-Steel Corporation is a going concern. Three and one-half years of intensive experimental work are behind it. Stran-Steel can be delivered promptly upon receipt of order. The corporation staff of architects, builders and engineers are available for the services of prospective home builders.

A house is as modern as the materials that go into it. To say that a house is not modern because it uses old established types of architecture is the same as saying that a man is not modern because he is honest, industrious and dependable. Houses built with the frame work of Stran-Steel and the well known collateral building materials for interior and exterior walls, floors and roof are fire-resisting, proof against tornadoes, earthquakes and lightning. They resist termites, vermin and dry rot. They should not depreciate from rust or weathering, if the exposed walls and floors are properly cared for, because the Stran-Steel frame itself is well covered with a rust-resisting enamel.

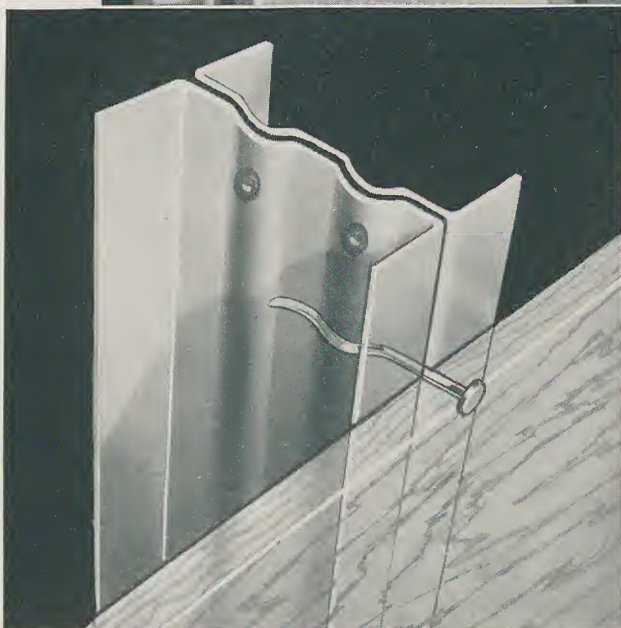
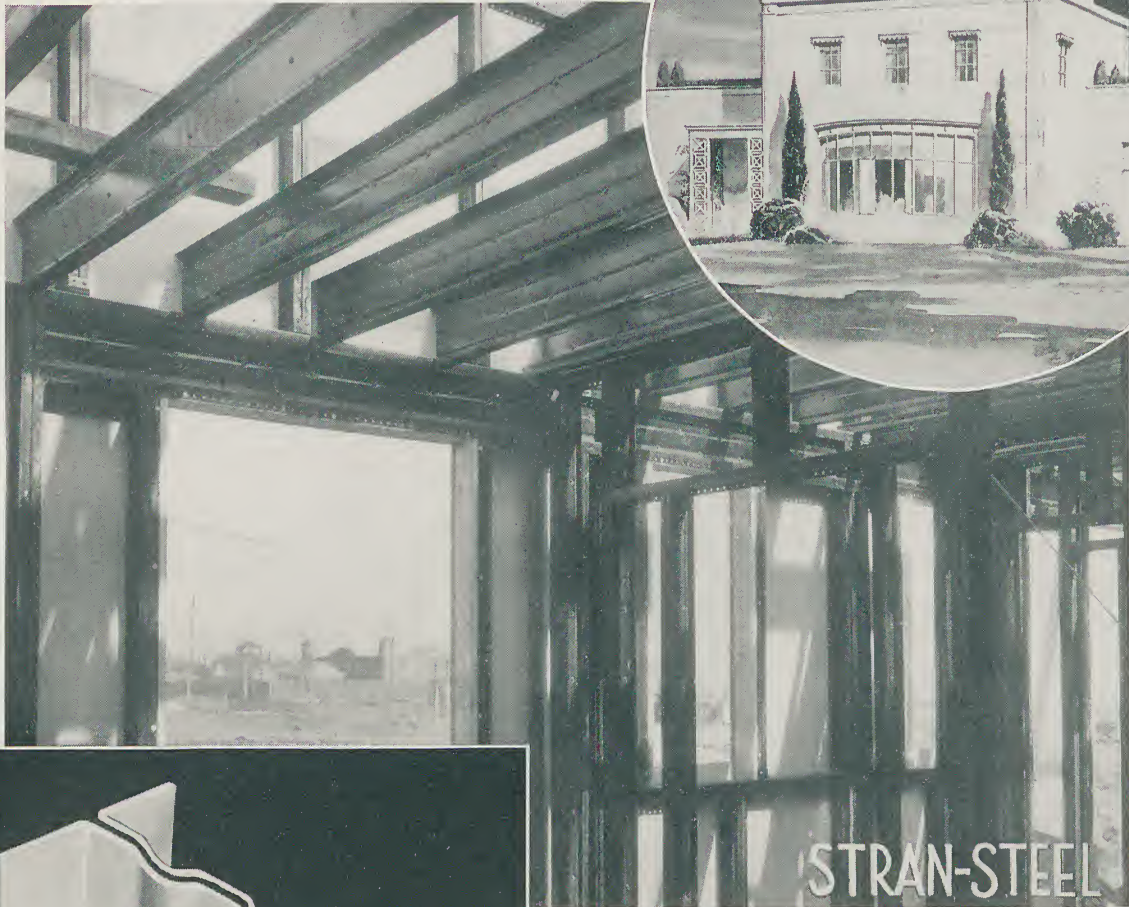
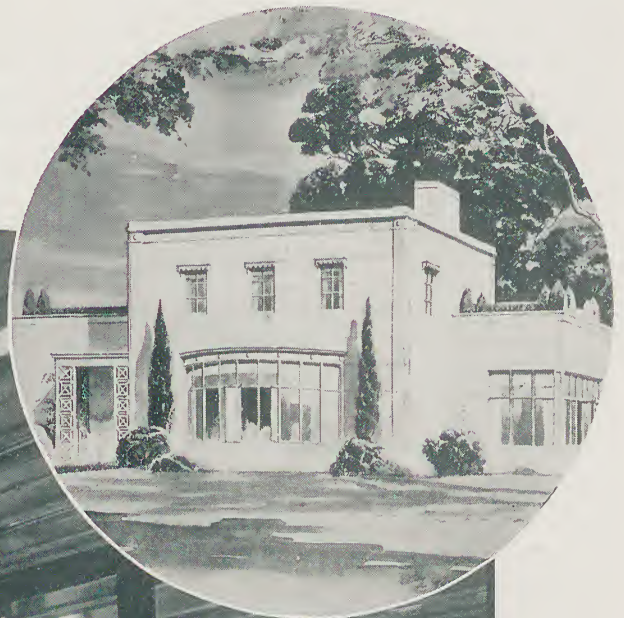
There is one outstanding reason why it is possible to build permanently and economically with Stran-Steel. The collateral building materials are all nailed to Stran-Steel. The use of the hammer and nail in the erection of shelter is the best known and the cheapest method of building. Stran-Steel takes advantage of this universal and easy method, and provides the permanence, safety and flexibility of the best in modern construction.



# The STRAN-STEEL FRAME

## A Century of Progress in Home Building

THE strength and rigidity of steel plus the easy working qualities of wood are the contribution of Stran-Steel to homebuilding, as demonstrated at the World's Fair. This steel house frame, developed by practical builders, thoroughly tested, and now offered to architects, contractors and dealers by Mr. Carl A. Strand,



The Stran-Steel stud is a "2x4" of 16 gauge steel, formed and riveted with curved nailing slot as shown. 8d common nails hold siding or lining with deathless grip.

a prominent Detroit lumber dealer, clearly marks A Century of Progress in home construction.

Stran-Steel is *nailable*. You nail to Stran-Steel studs, sills, joists and rafters—attaching all other materials quickly and securely by nailing to this strong, rigid, permanent house frame. The *nailing slot* (patented) in every Stran-Steel member takes and holds nails with a giant grip.





Carpenters bolt together the light-weight Stran-Steel frame members, and then nail on the siding, roof and floors. It's a quick, easy job needing only the ordinary carpentry tools plus a hand-power punch and shear.

Stran-Steel is laid out on the job and erected by ordinary carpenters using their customary tools and craftsmanship. Floor, ceiling and wall surfacing materials, both interior and exterior, are nailed to Stran-Steel just as they are to wood.

Practical experience taught the inventors of Stran-Steel that steel framing for a home must be easily sawed and nailed, not only to render it practical for builders to handle, but to make it suitable to receive the collateral building materials, most of which have been designed to be applied by nailing.

Stran-Steel consists of six main elements, made of 16 gauge steel, and six brackets or attachments, made of 13 gauge stock. These elements are:

1. The stud is used in place of the wood 2 x 4 for walls and as a short span header and as a light rafter. It is twice as strong as a 2 x 4 in bending and three times as strong in compression. Thus it can be placed on 2 ft. centers, and even greater spans when some of the newer and stiffer wall covering materials are employed. It has the nailing groove along both edges.

2. The joist is used for floors, long span headers and heavy rafters. It comes 7" deep, and will take clear spans up to 18 feet on 2 ft. centers. Greater spans are usually broken up with I beams in the usual manner. The nailing groove runs the length of both edges of the joist.

3. The plate, to which the joists and studs are bolted or fastened with drive screws, is a channel shaped member with holes running along both sides and back, spaced one inch apart to provide flexibility in assembly.

*(Continued to next page)*



Nailing on insulation board sheathing for a brick veneer house built of Stran-Steel in Detroit in 1929. Note how easily the windows are framed in with 2x4 wood bucks.



# A Stran-Steel House Frame Is Strong—Rigid—

*(Continued from preceding page)*

4. The ridge is made of two wide shallow channels, flush-welded back-to-back. It also serves for valleys.

5. The half-stud is used for backing up lath, for false ceilings and as a non-supporting nailing strip. It is made by slitting a stud lengthwise into similar T-shaped members, each with a nailing groove.

6. The bridging is made of 1" strip and comes in rolls of convenient length.

The attaching means or brackets are:

1. The header bracket is used for all window and door openings, for sills and at corners.

2. The rafter bracket is used to attach pitched rafters to the plate and jack-stud to the rafters.

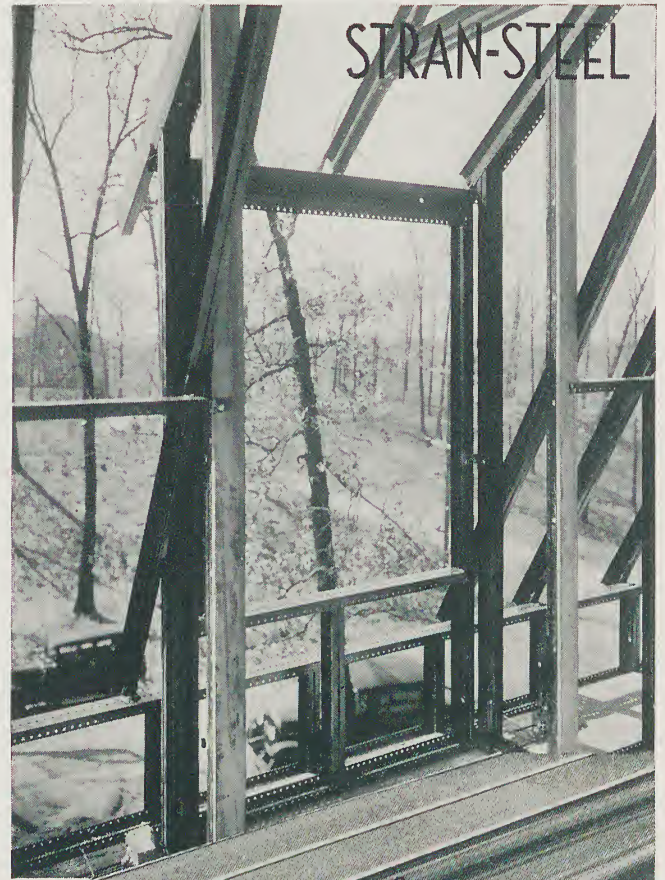
3. The plate bracket secures the plate together and is used in a variety of places for stiffening.

4. The joist hanger is used to hang joist together at right angles, for stair openings, etc.

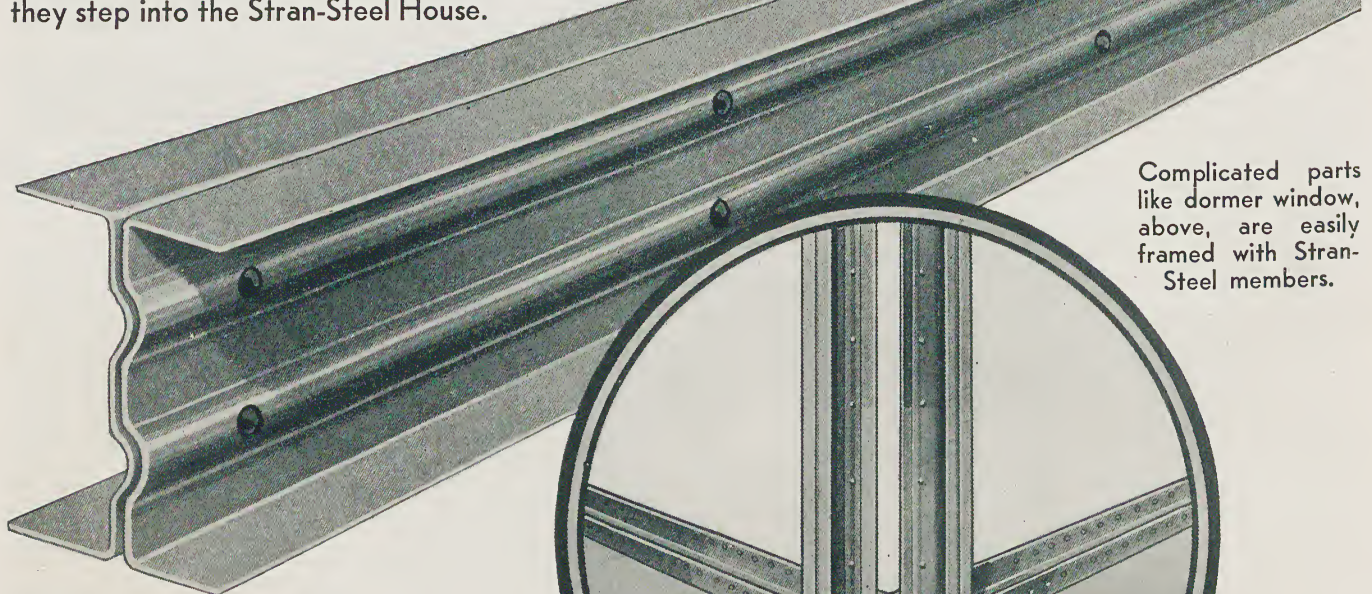
5. The stud bracket is used to fasten one stud to another when they are not parallel in partitions, and to attach jamb-studs to the sill and the plate.

6. The ridge bracket is adjustable to any pitch and attaches the rafters to the ridge and to the valleys.

"Solid as a rock" is the impression World's Fair visitors get the moment they step into the Stran-Steel House.



Complicated parts like dormer window, above, are easily framed with Stran-Steel members.



**STRAN-STEEL**

Sill and plate members are 2x4 channels punched every inch down center and in both flanges for bolting and nailing. Bolted corner construction of studs to sill is shown to right. Four 5/16" bolts secure each stud. Sill plate is bolted down to foundation wall. Studs are story-high in length for "platform type" framing.

Low cost  
No sagging  
Easy handling  
Lasting rigidity  
Permanent satisfaction



# -Permanent—Easy to Erect—Adaptable—Economical

**PROVED BY EXPERIENCE**—The makers of Stran-Steel are lumbermen, steel men, architects, and builders; consequently Stran-Steel is practical from every approach. It was designed to be brought to the home owner, through the hands of the same men who are now supplying house building materials. Building supply dealers can easily stock Stran-Steel; it does not depreciate in the yard, and can be cut to fill orders with simple equipment.

Architects specify Stran-Steel interchangeably with wood because it more than satisfies all building code requirements and is suitable for either "platform" or "balloon" type framing. It can be used in any type of architecture. Carpenters like to erect Stran-Steel. It is light in weight and easy to handle; it is laid out on the job and is erected like wood framing by the same number of men in the same length of time. Siding, flooring, lath, and roofing are nailed to Stran-Steel studs and joists just as they are to wood.

The bank or insurance company that finances a home with Stran-Steel framing knows that the life of the dwelling is prolonged many fold and that the insurance rates will be lowered over half, be-

*(Continued to next page)*

Below—Detail of rafter-to-ridge connection

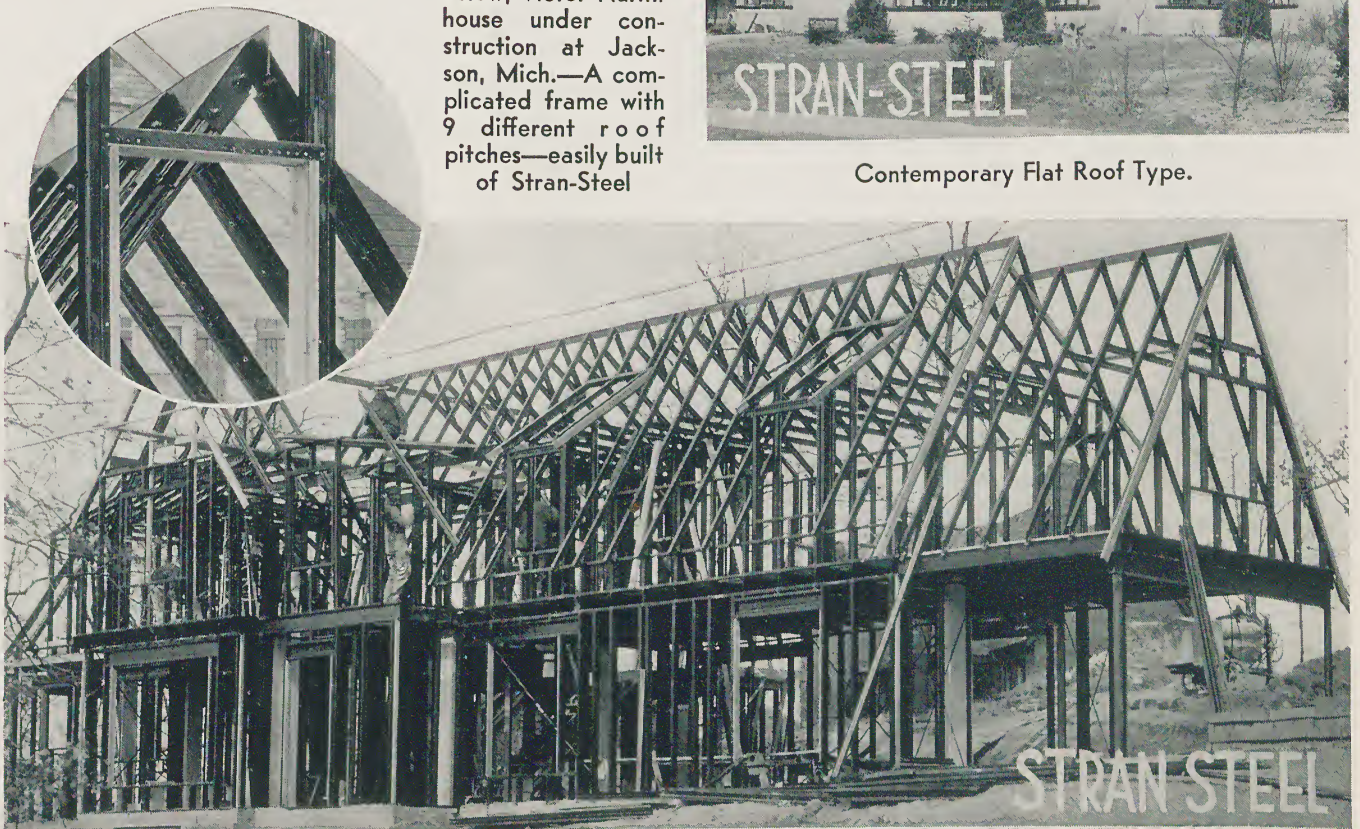
Below, Victor Nurmi house under construction at Jackson, Mich.—A complicated frame with 9 different roof pitches—easily built of Stran-Steel



English Gable Type Home in Detroit.



Contemporary Flat Roof Type.





# Stran-Steel House Framing Gives Architects

*(Continued from preceding page)*

cause of the reduction of fire hazards. The public wants fire-safe construction.

Stran-Steel is proof against vermin, termites and fungus. Its rugged construction makes houses and other structures safe from tornadoes and earthquakes.

The new home owner needs make no sacrifices in architecture, size, or arrangement of his home in order to use Stran-Steel. He will not have to change his mode of living to fit himself into a standardized pre-fabricated house, since the plans for his conven-

tional wood framed dwelling interchangeably employ Stran-Steel framing. He knows his house will be permanent and that the repair bills will be low.

Stran-Steel will be sold by material supply dealers, specified by architects and erected by carpenters to replace the corresponding lumber and be well within the requirements of all building codes.

Stran-Steel is no longer an experimental project. For over two years it has been thoroughly tested in the actual construction of homes. The Corporation is now in a position to make shipments of Stran-Steel within a few days of receipt of orders.

## INVITATION TO BUILDERS

THE Stran-Steel Corporation invites correspondence from architects, building contractors, real estate builders, retail lumber and supply dealers and property owners.

The planning, promotion and execution of homes and other structures utilizing Stran-Steel members are in your hands in each local community. The Stran-Steel Corporation desires to confine its activities strictly to the manufacture of its patented steel frame members. The local sale and use of these members is your opportunity.

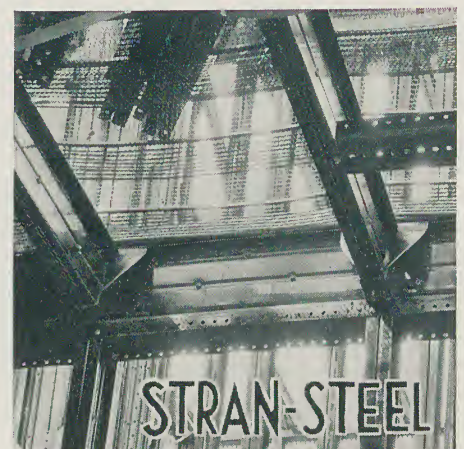
Great public interest is being aroused; a market is being created for you. A sample Stran-Steel house will soon be built in your community. Will YOU be identified with it?

Write today for further particulars—and come to the Fair. See for yourself this Century of Progress in Homebuilding.



Stran-Steel joists set on 24 inch centers give solid support for floors of metal lath or wire fabric and 1½ inches of concrete. Finish floor is then laid down in mastic.

Pressed steel stirrups are used to support Stran-Steel joist headers, as around stair openings, or where beams are inserted to cut down length of span.





# and Builders Unlimited Freedom of Design

THE most talked-about house in America today—and the most admired! Visit this Good Housekeeping-Stran-Steel House at the Chicago World's Fair, A Century of Progress. Study its improved construction and its fresh, clean-cut style. Follow this new model home in your own building work. It is what the people want.



## COMPLETE BLUE PRINTS A CENTURY OF PROGRESS GOOD HOUSEKEEPING STRAN-STEEL HOUSE

Architects can exercise perfect freedom of design when planning a dwelling or other structure with a Stran-Steel Frame. The Stran-Steel Corporation desires to co-operate with the architectural profession in furthering individuality of design along with good construction.

For the purpose of familiarizing architects and builders and prospective home owners with the specifications and the

procedure for building this house, special arrangements have been made with the architects to supply complete plans and specifications. Address: H. Augustus O'Dell and Wirt C. Rowland, Architects, 90 Stimson Place, Detroit, Michigan.

The Stran-Steel Corporation is affiliated with the Kelsey-Hayes Wheel Company of Detroit, Michigan, and has enormous manufacturing facilities guaranteeing high quality and prompt deliveries. Long experience in the technology and fabrication of steel by this organization assures Stran-Steel buyers most satisfactory service.

The Stran-Steel development is the culmination of a long research in home building methods based on actual experience of practical builders and those agencies that supply materials to builders and home owners.

The Stran-Steel Corporation is now developing a dealership organization throughout the United States. Responsible parties with merchandising experience are invited to investigate now.

### STRAN-STEEL

#### 1 Easily Constructed

Can be erected by any carpenter from the usual set of plans for any style house.

#### 2 Fire Proof and Sanitary

This fire-resisting construction provides owners with lower insurance rates and offers proof against vermin, termites, fungus and musty odors.

#### 3 Greater Permanence

No major repairs are necessary on a Stran-Steel home for the first 25 years!

#### 4 Greater Resale Value

Stran-Steel houses have greater mortgage and resale value, because they will not settle, plaster does not crack and doors and windows fit as originally hung.



#### 5 Sturdy Construction

Because Stran-Steel is twice as strong as the wood it replaces, it does not warp or sag and resists earthquakes and tornadoes.

#### 6 Lower Upkeep

Since they resist vibration, wear and the elements, houses built with Stran-Steel skeleton frame work do not require the frequent services of the carpenter, plumber, electrician, painter and decorator.

## STRAN-STEEL CORPORATION

6100 McGraw Ave., Detroit, Michigan

STRUCTURAL STEEL FOR HOUSES • SHOPS • COTTAGES • SIGN BOARDS • OFFICE PARTITIONS • GARAGES • APARTMENTS



# ARCHITECTURAL SPECIFICATIONS

## Good Housekeeping-Stran-Steel Century of Progress House

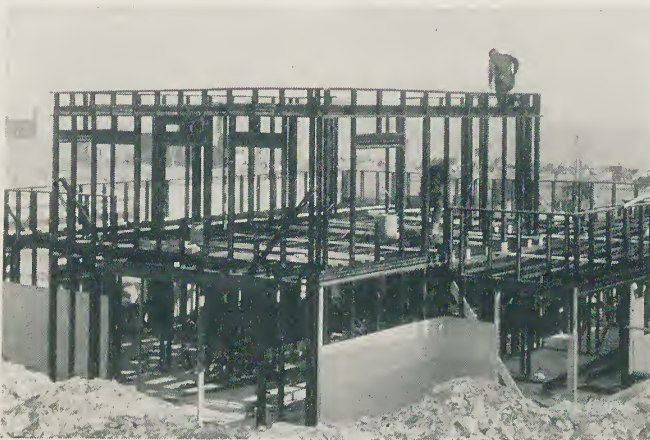
Great care has been exercised in selecting the construction materials, the household equipment and the decorations and furniture of this Good-Housekeeping-Stran-Steel Century of Progress House so as to produce a truly outstanding example of style and quality at reasonable expense.

### Materials and Their Manufacturers Associated with the Stran-Steel Frame to Complete the Structure of the Century of Progress House

- Celotex Co.**—"Celotex," Outside Sheathing, Recreation Room Walls, Insulation in Flooring—Chicago
- U. S. Gypsum Co.**—"Sheetrock," Interior Walls, First Floor—Chicago
- Libbey-Owens-Ford Glass Co.**—Window Glass—Toledo, Ohio
- Detroit Steel Products Co.**—"Fenestra" Windows, Frames and Screens—Detroit
- Porcelain Enamel Mfg. Co., Baltimore,** Wolverine Porcelain Enameling Co.—Enamel for Glasiron Macotta—Detroit
- Maul Macotta Co.**—"Glasiron Macotta," Exterior Surface of House—Detroit
- Republic Steel Co.**—Stainless Steel Base of Macotta—Youngstown, Ohio
- Great Lakes Steel Co.**—Steel for Studding—Ecorse, Michigan
- Kelsey-Hayes Wheel Co.**—Steel for Framework—Detroit
- The Barrett Co.**—Roofing—New York City
- Overhead Door Corp.**—Garage Doors—Hartford City, Ind.
- The Milcor Corp.**—Metal Trim—Milwaukee
- The Fox Furnace Co., a Division of American Radiator & Standard Sanitary Corp.**—Heating and Air Conditioning System—Elyria, Ohio
- National Brass Co.**—Hardware—Grand Rapids, Mich.
- The Ludowici-Celadon Co.**—Roof Tile—Chicago
- Illinois Bell Telephone Co.**—French Telephones: Three Permanent Instruments; One Portable—Chicago
- General Electric Co.**—Wiring Plan—Cleveland
- Haskelite Manufacturing Corporation**—Haskelite Phenaloid Compound Lumber—Fire Resistant, in Garage—Chicago, Ill.
- Landscaping**
- James W. Owen Nurseries**—Landscaping—Bloomington, Illinois
- Equipment for Kitchen, Laundry and Care of the House selected by Stran-Steel Corp. from Good Housekeeping Institute's List of Equipment Tested and Approved**
- Dieterich Steel Cabinet Corp.**—Kitchen Cabinets—Chicago
- Kelvinator Sales Corp.**—"Kelvinator" Refrigerator—Detroit
- American Stove Co.**—"Magic Chef" Range—Cleveland
- General Electric Co.**—"General Electric Dishwasher Sink", Kitchen Clock—Cleveland, O.
- Diehl Mfg. Co.**—"Wind-O-Vent" Fan—Elizabethport, N. J.
- Chicago Flexible Shaft Co.**—"Sunbeam" Automatic Toast Witch, "Sunbeam" Mixmaster; "Sunbeam" Smoothing Iron in Laundry—Chicago
- The International Nickel Co., Inc.**—Monel Metal Surfaces in Kitchen—New York City
- Universal Blower Co.**—Stove Canopy—Birmingham, Mich.
- The Hoover Co.**—"Hoover" Vacuum Cleaner—Chicago
- Altorfer Bros. Co.**—"A.B.C." Ironer & Washing Machine—Peoria, Ill.
- Crane Co.**—Laundry Tray—Chicago, Ill.
- Ruud Mfg. Co.**—Continuous Flow Water Heater—Pittsburgh.
- Bissell Carpet Sweeper Company**—"Bissell Silver Streak" Carpet Sweeper—Grand Rapids, Mich.
- Bathroom Equipment Selected by Good Housekeeping Studio**
- Crane Co.**—Bathroom Fixtures—Chicago
- Capital City Electric Co.**—Bathroom Cabinet—Des Moines

### Finishing and Furnishing Materials Used—from Firms Co-operating with Good Housekeeping Studio

- Background**
- Pittsburgh Plate Glass Co.**—"Wall-hide," All Paint—Milwaukee
- Star-Peerless Wall Paper Mills**—"Mayflower" Wallpaper, Back Bedroom—Chicago
- Imperial Paper & Color Corp.**—"Glen-craft" Wallpaper, Front Bedroom—Glens Falls, N. Y.
- Standard Textile Products Co.**—"Sanitas" Wall Covering as Lining in Living Room, Halls, Kitchen and Laundry—New York City
- Formica Insulation Co.**—"Formica" in Kitchen—Cincinnati
- Columbia Mills**—All Venetian Blinds and Organdie Curtains—New York City
- Cassidy Co.**—Lighting Fixtures—New York City
- The Nurce Companies, Inc.**—Mirrors—Bloomington, Ind.
- Todhunter, Inc.**—Mantel & Fireplace Fittings—New York City
- Floors**
- Armstrong Cork Co.**—Linoleum Floors in Living Room, Halls, Kitchen and Laundry; "Linowall" Covering in Laundry—Lancaster, Penna.
- Congoleum-Nairn, Inc.**—"Sealex" Linoleum and Wall Covering in Bathroom; "Sealex" Floor in Recreation Room—Kearny, N. J.
- E. L. Bruce Co.**—Wood Flooring, Two Bedrooms—Memphis, Tenn.
- L. C. Chase Co.**—"Seamloc" Rugs—New York City
- Behr-Manning Corporation**—Kork-o-Tan Rug Holder—Troy, N. Y.
- Furniture**
- Baker Furniture Factories**—All Living Room, Dining Room and Bedroom Furniture—Allegan, Mich.
- Imperial Furniture Co.**—Tables, Side Chairs, Recreation Room—Grand Rapids, Michigan
- Mueller Furniture Co.**—Overstuffed Chairs, Recreation Room—Grand Rapids, Michigan
- Grand Rapids Chair Co.**—Chest, Desk and Chair, Recreation Room—Grand Rapids, Michigan
- The Mersman Bros. Corp.**—Two Occasional Tables, Recreation Room—Celina, Ohio
- The Simmons Co.**—"Beautyrest" Springs & Mattresses, "Princess" Pillows; "Beautyrest" Studio Couches in Recreation Room—Chicago
- The Lloyd Mfg. Co.**—Terrace Furniture—Menominee, Mich.
- T. J. Breslin & Sons Co., Inc.**—Terrace Furniture and Rugs—New York City
- H. C. White Co.**—Terrace Furniture—New York City
- Bentley Furniture Co.**—"The New Deal" Card Table—Villa Nova, Penna.
- Florentine Craftsmen, Inc.**—Terrace Furniture—New York City
- Singer Sewing Machine Co.**—Electric Cabinet Sewing Machine—New York City.
- Fabrics**
- Marshall Field & Company, Wholesale**—Fabrics in Recreation Room, Living Room, Back Bedroom—Chicago & New York City
- F. Schumacher & Co.**—Fabrics in Living Room and Both Bedrooms—New York City
- Closet Accessories**
- Knappe & Vogt Mfg. Co.**—"K-Venience" Closet Hardware—Grand Rapids, Michigan
- Haskelite Mfg. Corp.**—"Plymetl Clothes Vault"—Chicago
- Hammacher Schlemmer & Co., Inc.**—Boxes, Hatstands, Hangers—New York City
- Linen, Blankets, Bedspreads**
- Clarence Whitman & Sons, Inc.**—"Esmond" Blankets, "Stevens" Spreads and "Old Bleach" Towels—New York City
- F. C. Huyck & Sons Co.**—"Kewood" Blankets—Albany, N. Y.
- Pepperell Manufacturing Company**—"Pepperell Peeress" Bed Linen—Boston, Mass.
- Pequot Mills**—"Pequot" Bed Linen—Salem, Mass.
- Utica & Mohawk Cotton Mills, Inc.**—"Utica" and "Mohawk" Bed Linen—Utica, N. Y.
- Wellington Sears Co.**—"Martex" Towels—New York City
- Anne Orr**—Quilted Pillow & Chaise Lounge Throws—Nashville, Tenn.
- China, Silver, Glass and Accessories**
- The Gorham Co.**—Sterling Silver on Bedroom Dressing Tables, and Sterling Table Service—Providence, R. I.
- International Silver Co.**—Sterling Table Service—Wallingford, Conn.
- Oneida Community, Ltd.**—"Community Plate" Table Service—Oneida, N. Y.
- Lenox, Inc.**—China—Trenton, N. J.
- Onondaga Pottery Co.**—Table Pottery—Syracuse, N. Y.
- A. H. Heisey & Co.**—"Heisey" Glassware—Newark, O.
- Fostoria Glass Co.**—"Fostoria" Glassware—Moundsville, West Va.
- Chase Brass & Copper Co., Inc.**—Accessories in Recreation Room—New York City
- Elizabeth Arden**—Cosmetic Accessories in Bedroom—New York City
- Paul Hanson Co.**—Lamps in Living Room and Back Bedroom—New York City
- Charles Hall, Inc.**—Lamps and Ornaments in Front Bedroom, Ornaments in Living Room, Urns in Dining Room—New York City
- Union Carbide Co.**—"Eveready" Wallites for Closets—New York City
- Pitt Petri, Importer, Inc.**—Accessories in Living Room—New York City
- W. E. Lindemann**—Accessories in Bedrooms, Living Room—New York City
- Galloway Terra Cotta Co.**—Terrace Jars, Flower Boxes, Sundial—Philadelphia
- Philco Radio & Television Corp.**—"Philco" Radios in Recreation Room and Front Bedroom—Philadelphia
- Kirsch Co.**—All Curtain Rods—Sturgis, Michigan
- The Spool Cotton Company**—Sewing Cotton in Workbasket in Back Bedroom—New York City



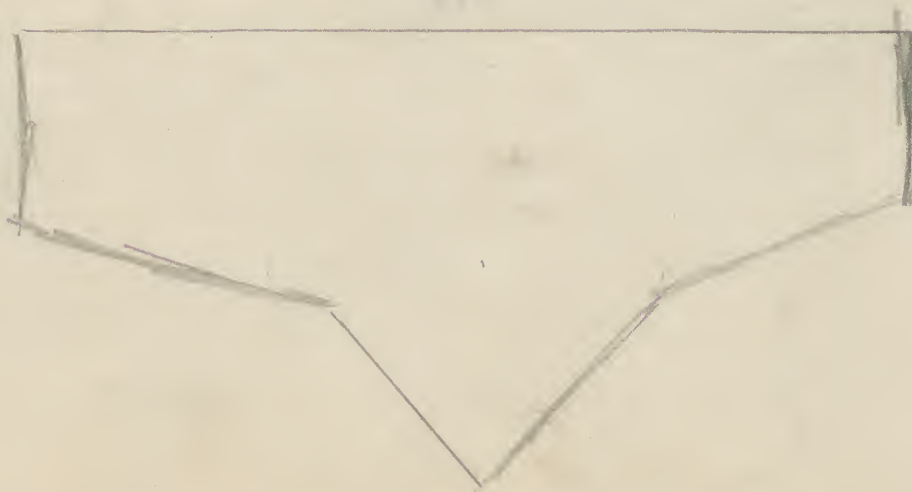
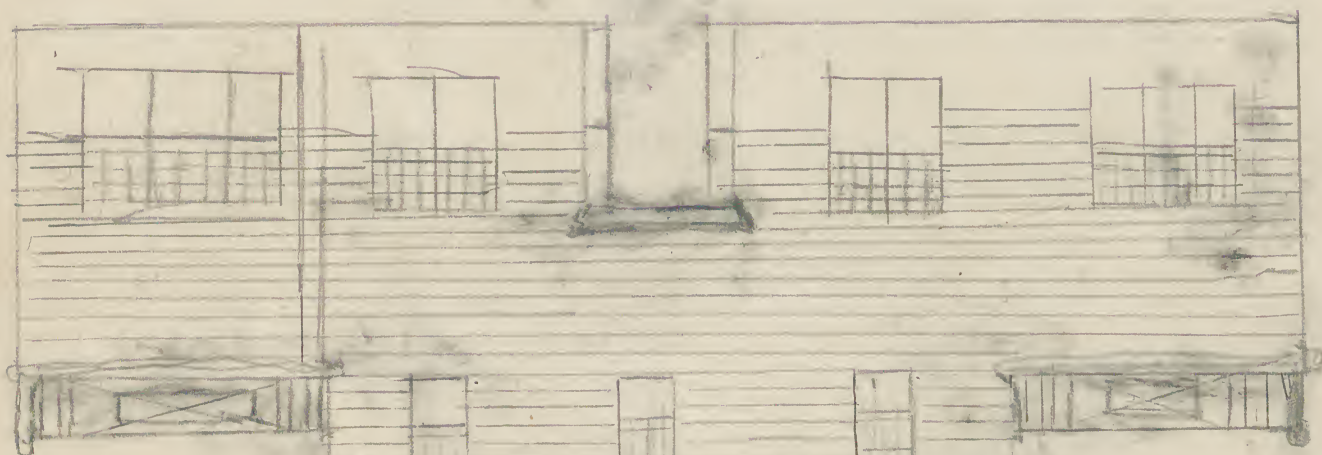
The Stran-Steel Frame of the Century of Progress Home. Constructed on the same principles of strength as our modern skyscrapers, it is put together with common nails by the same carpenter-workmen who have always built our houses.



The Stran-Steel Corporation offers its simplified steel framing members to the building public with entire confidence—based on actual experience—that they will produce stronger, safer, more rigid and more trouble-free homes and other structures, and at an economical cost.

Architects, builders and dealers and their clients are invited to investigate this tested method of better and less costly building.







Digitized by:



ASSOCIATION  
FOR  
PRESERVATION  
TECHNOLOGY,  
INTERNATIONAL  
[www.apti.org](http://www.apti.org)  
Australasia Chapter

**BUILDING  
TECHNOLOGY  
HERITAGE  
LIBRARY**

<https://archive.org/details/buildingtechnologyheritagelibrary>

from the collection of:

Miles Lewis, Melbourne

funding provided by:

the Vera Moore Foundation, Australia



vera moore  
FOUNDATION